

# HYSPPLIT-based forecast product for the Grand Bay Intensive

Based on the t00z NAM-12km forecast generated by the National Weather Service

This forecast starts at UTC 00 for the given date, which is 7 PM the night before in Grand Bay time (GBT). The hours displayed in this product – 9 AM to 8 PM GBT – thus represent hours 14-25 in the 48 hr t00z forecast. The file becomes available to NOAA ARL at ~2:00 AM GBT, and the processing of the data to make this product is generally done by 5:00 – 6 00 GBT.

## Trajectories (pages 2-13)

- One page for each local hour from 9 AM to 8 PM
- Image in upper left corner is mixing height (m)
- The other five images are back-trajectory maps, each map representing a starting point at a different elevation (meters) above mean-sea-level (250, 500, 1000, 2000, and 3000)
- There are nine trajectories shown on each map: one starting at the Grand Bay NERR and on a +/- 1 deg lat/long grid around the NERR
- The trajectories each go back 96 hours; but the trajectories may not stay on the map for all 96 hours.
- On each trajectory there is a little dot showing the location at six-hour intervals; and a larger symbol at 00 UTC each day.
- In the panel below the trajectories, the height above the surface is shown for each trajectory as it goes back in time
- Note that elevations in trajectory maps are shown as being “above ground level”, and the starting heights labels in the panels below each trajectory are shown for the first trajectory run. This happened to started over land where the elevation was ~80m, so, the labels happen to refer to that trajectory, so the labels say ~170, 420, 920, 1920, and 2920.

## Wind Direction at Different Elevations (pages 14-25)

- One page for each local hour from 9 AM to 8 PM
- Each image shows a map of wind direction, at each grid point in the NAMSF 12-km forecast at a particular vertical level in the met data set
- There are 6 maps, corresponding approximately to the elevations 10, 250, 500, 1000, 2000, 3000.
- The met data is on “terrain following sigma levels”; so, the heights above the ground at any given location are influenced by the terrain height.

## Meteorological Data Contours (pages 26-37)

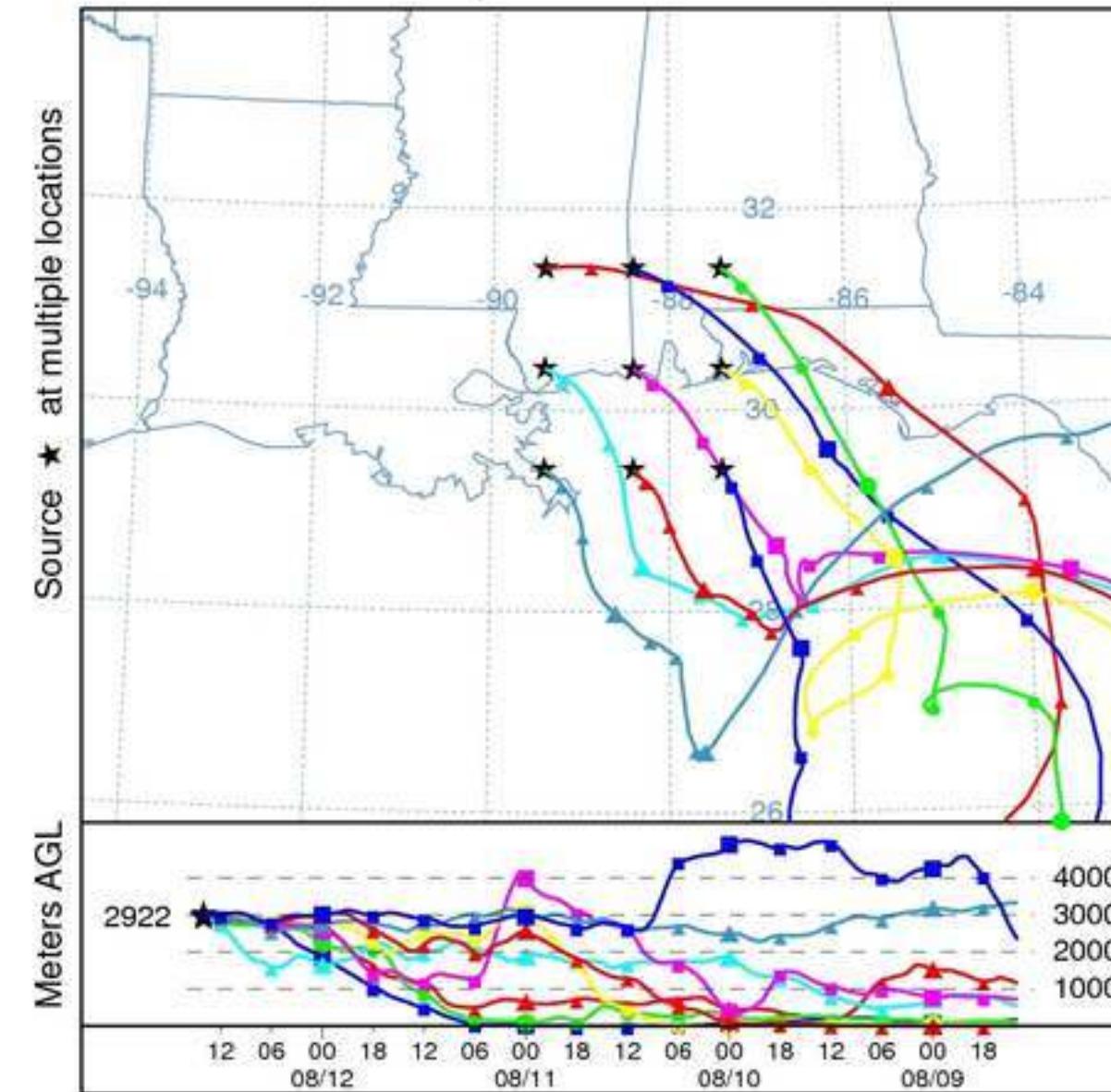
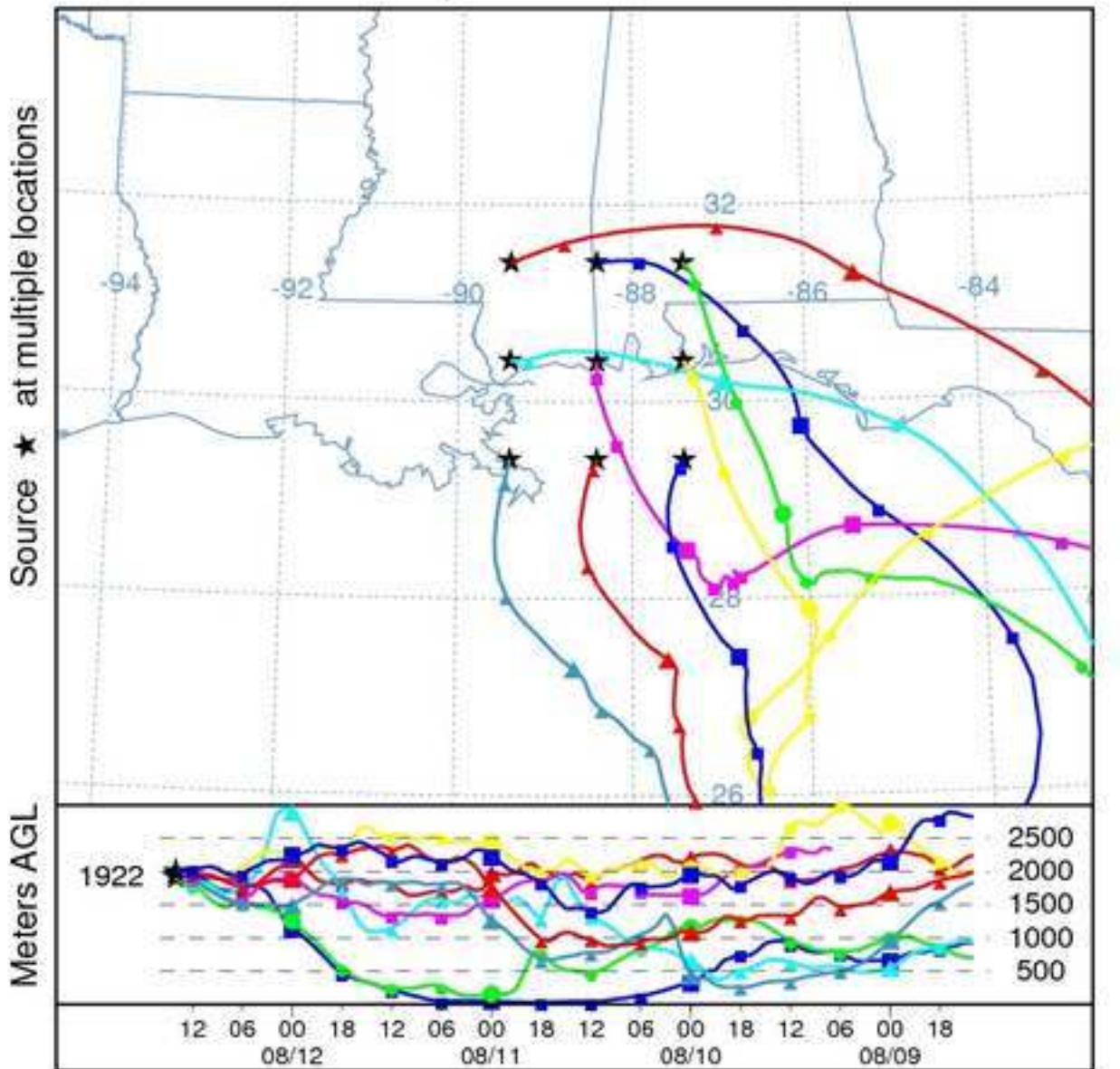
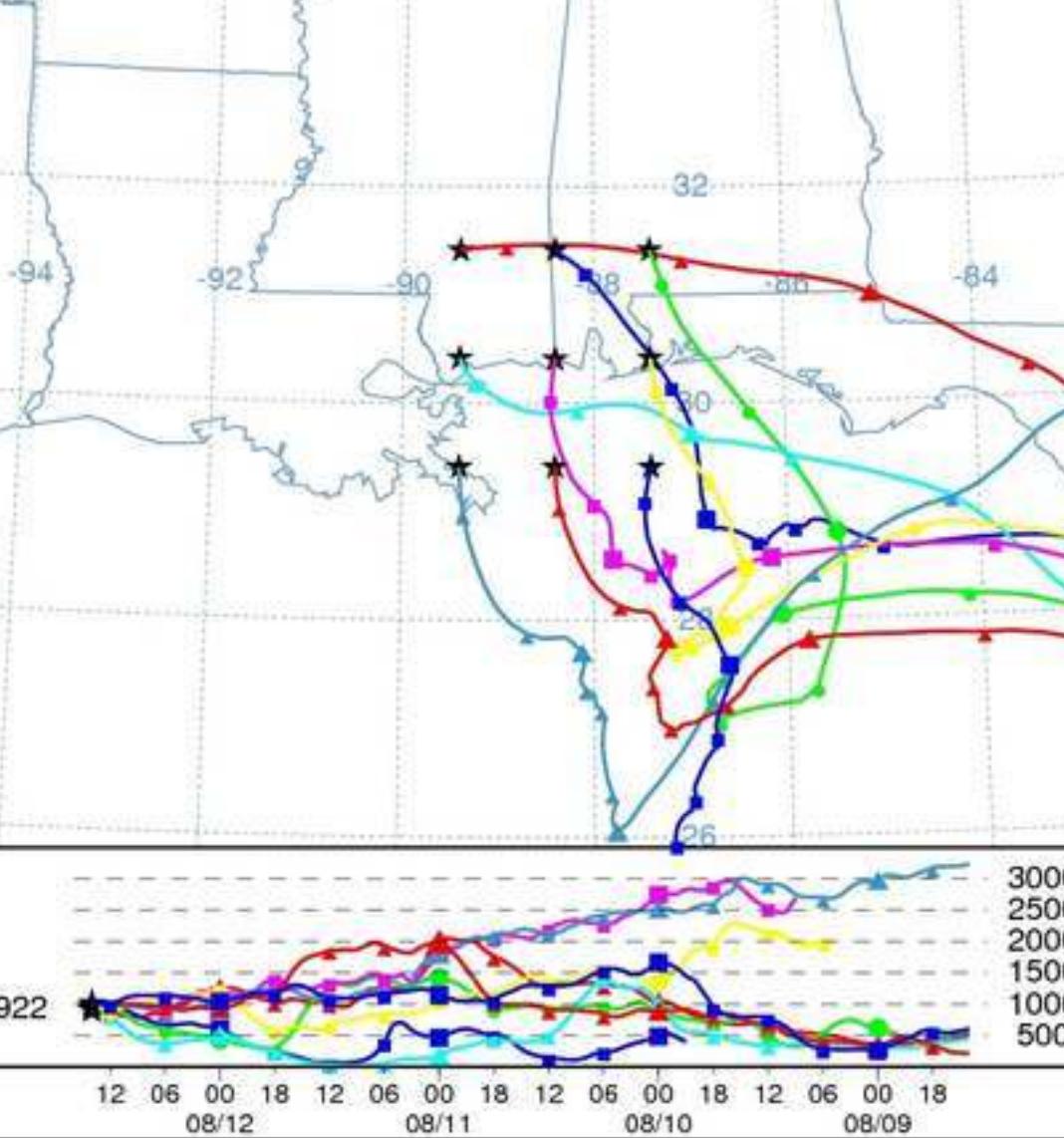
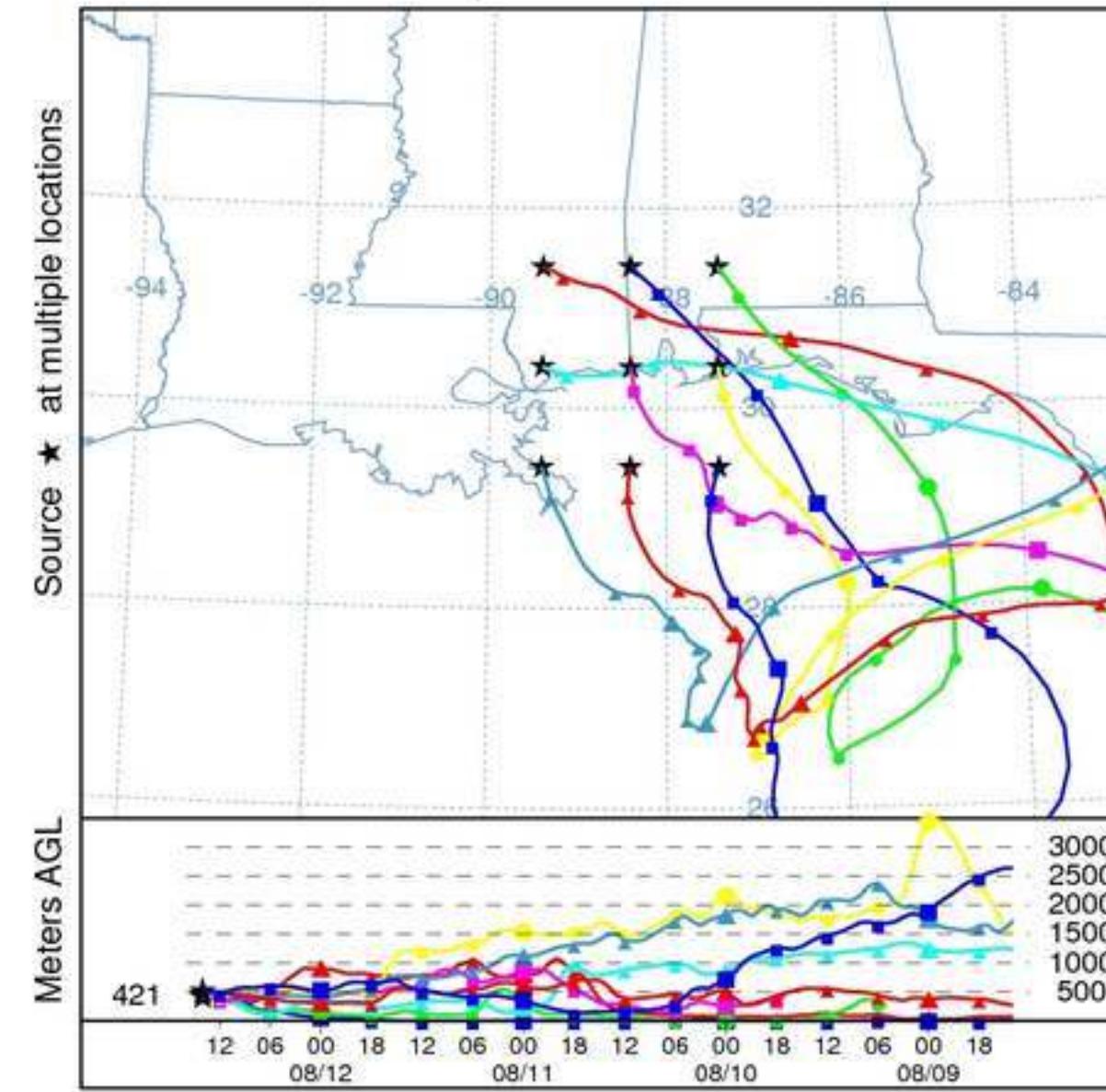
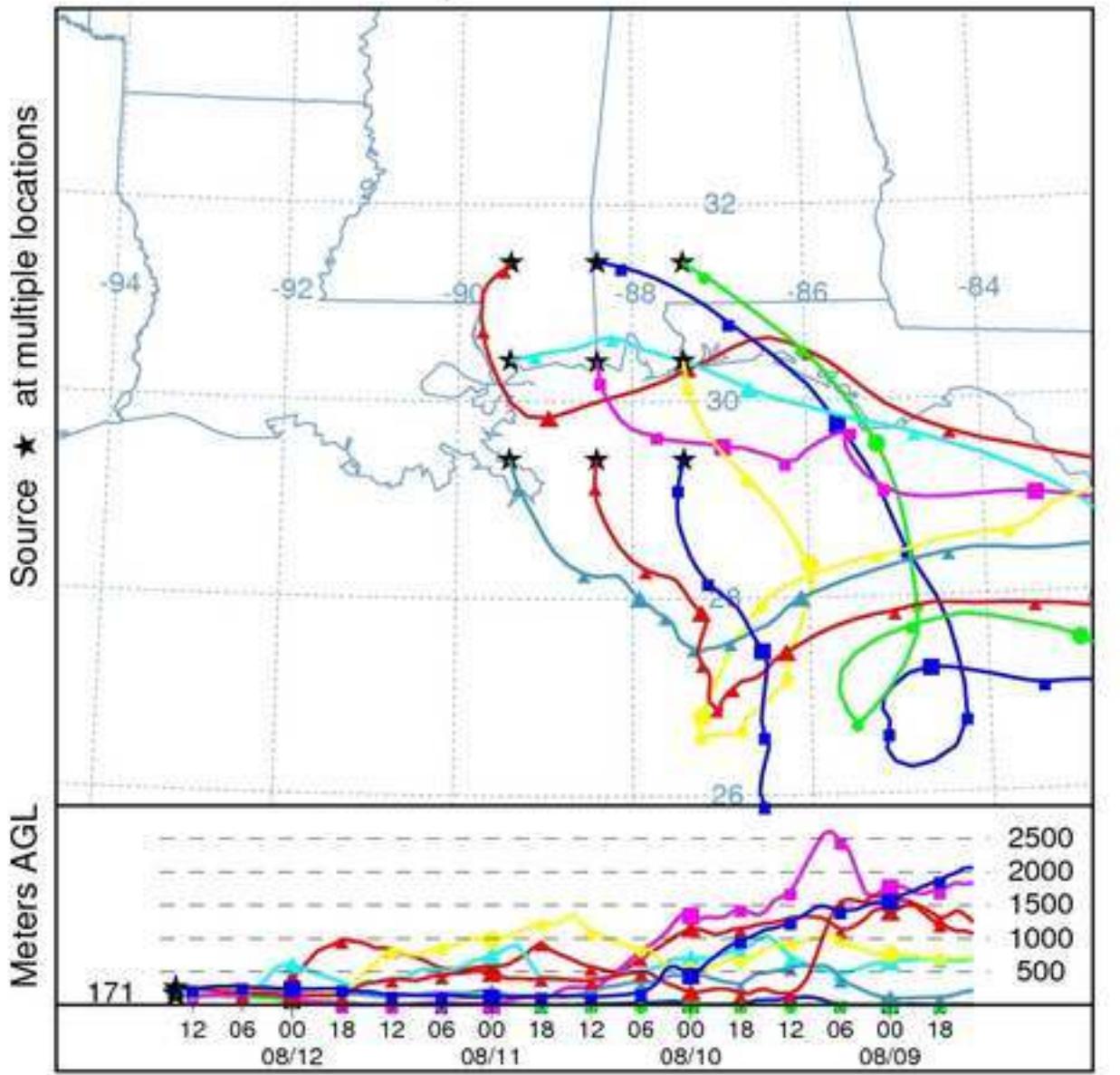
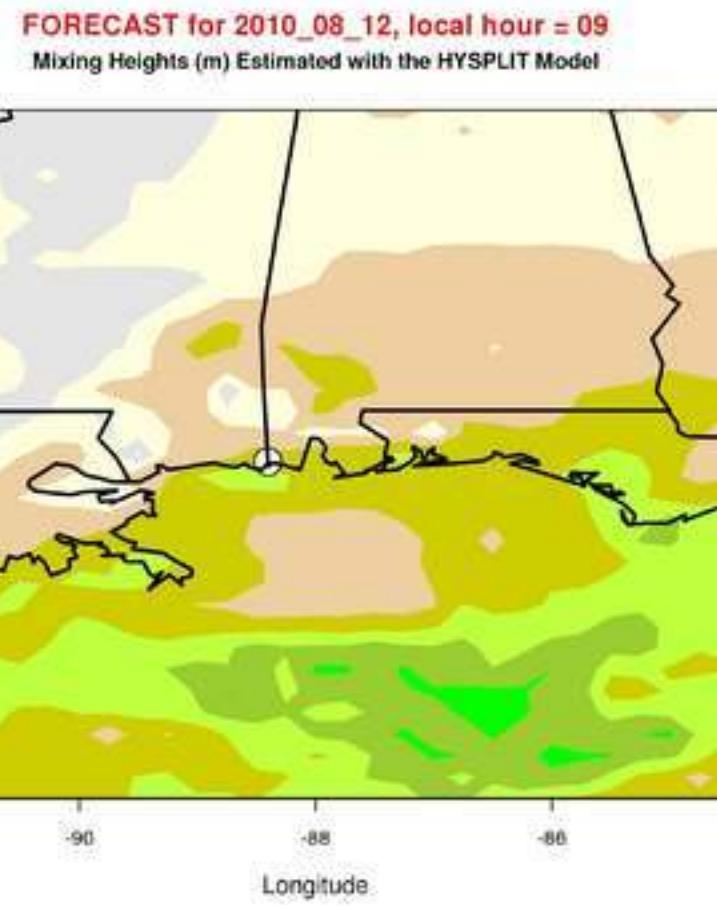
- One page for each local hour from 9 AM to 8 PM
- Image in upper left corner and upper middle are the mixing height (same map as shown on Trajectory pages). The two maps are slightly different due do differing interpolation procedures
- The map in the upper right corner is forecast precipitation, shown as a 3-hr accumulation, ending at that hour; that is the amounts shown are the total forecast precipitation over the previous 3 hrs.
- Other maps shown are for the following three surface parameters: pressure, downward shortwave radiation flux, and friction velocity

## Meteorological Data for Grand Bay NERR (pages 38-50)

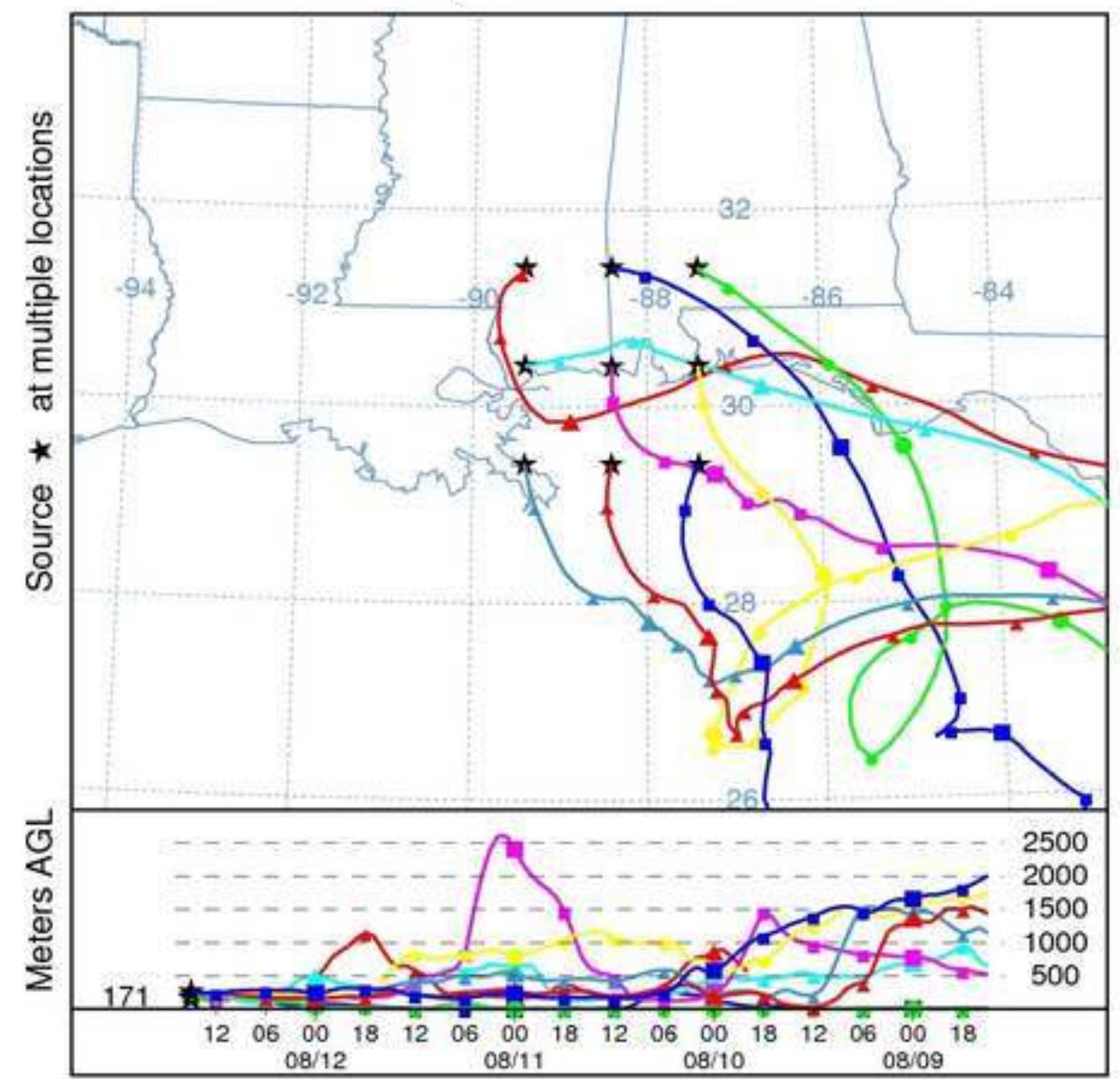
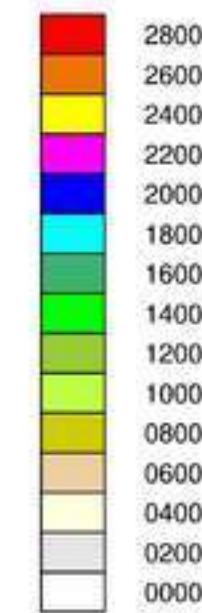
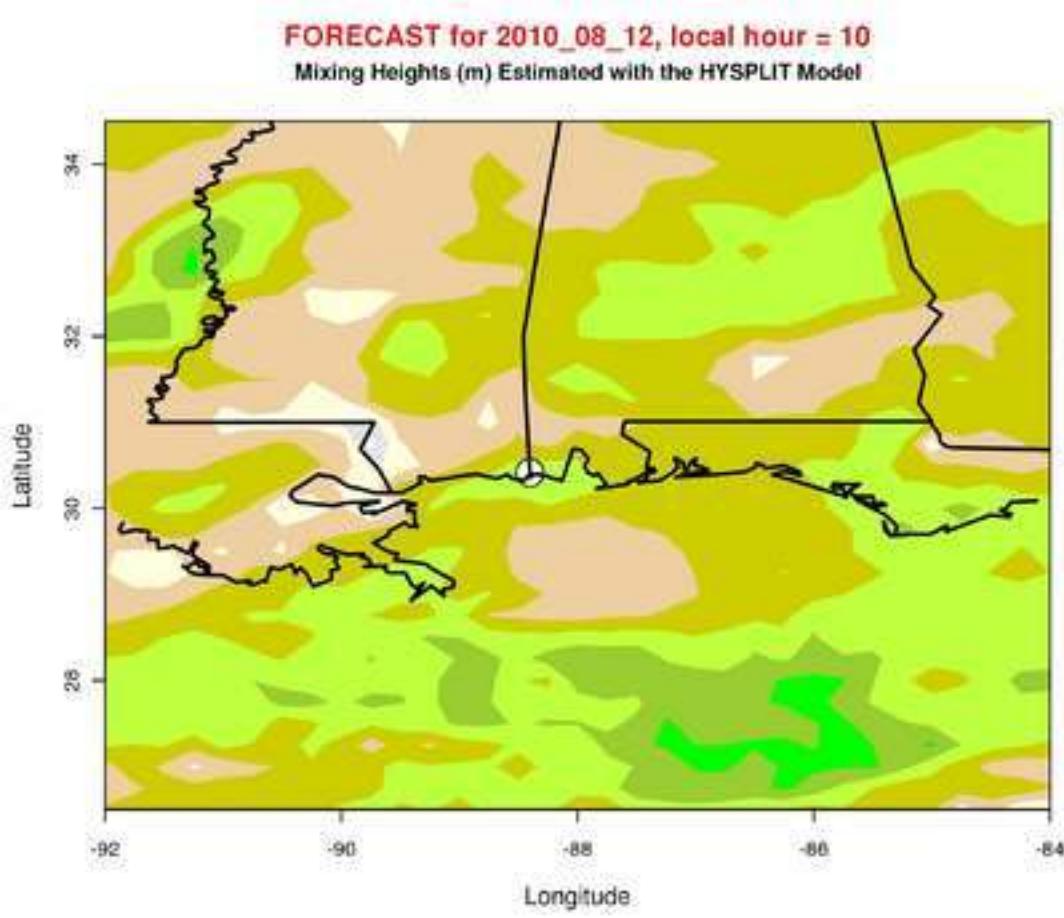
- Page 38 is description of data that are shown
- Then, one page for each local hour from 9 AM to 8 PM
- Each page shows the meteorological data at the surface and at each level of the gridded, forecast meteorological data set.
- Note that on these pages and throughout, times are expressed in UTC (Universal Time Coordinate). These are currently 5 hrs ahead of Grand Bay, e.g., 9 AM Grand Bay is 2 PM UTC (or UTC 14)

## RGM Plumes from Large Regional Sources (pages 51-63)

- Page 51 shows a map of some of the large sources in the region; as stated on map, some of the sources are no longer emitting. These sources were not included in these simulations.
- One page for each local hour from 9 AM to 8 PM; each page shows model-estimated RGM concentrations for six different vertical layers n the atmosphere.
- These maps do not represent the total RGM in the atmosphere, but only the fraction contributed by large regional sources.
- The maps show average concentrations for the hour leading up to the stated hour, e.g., the map for UTC 14 represents average concentrations between UTC 13 and 14 (8 – 9 AM Grand Bay)

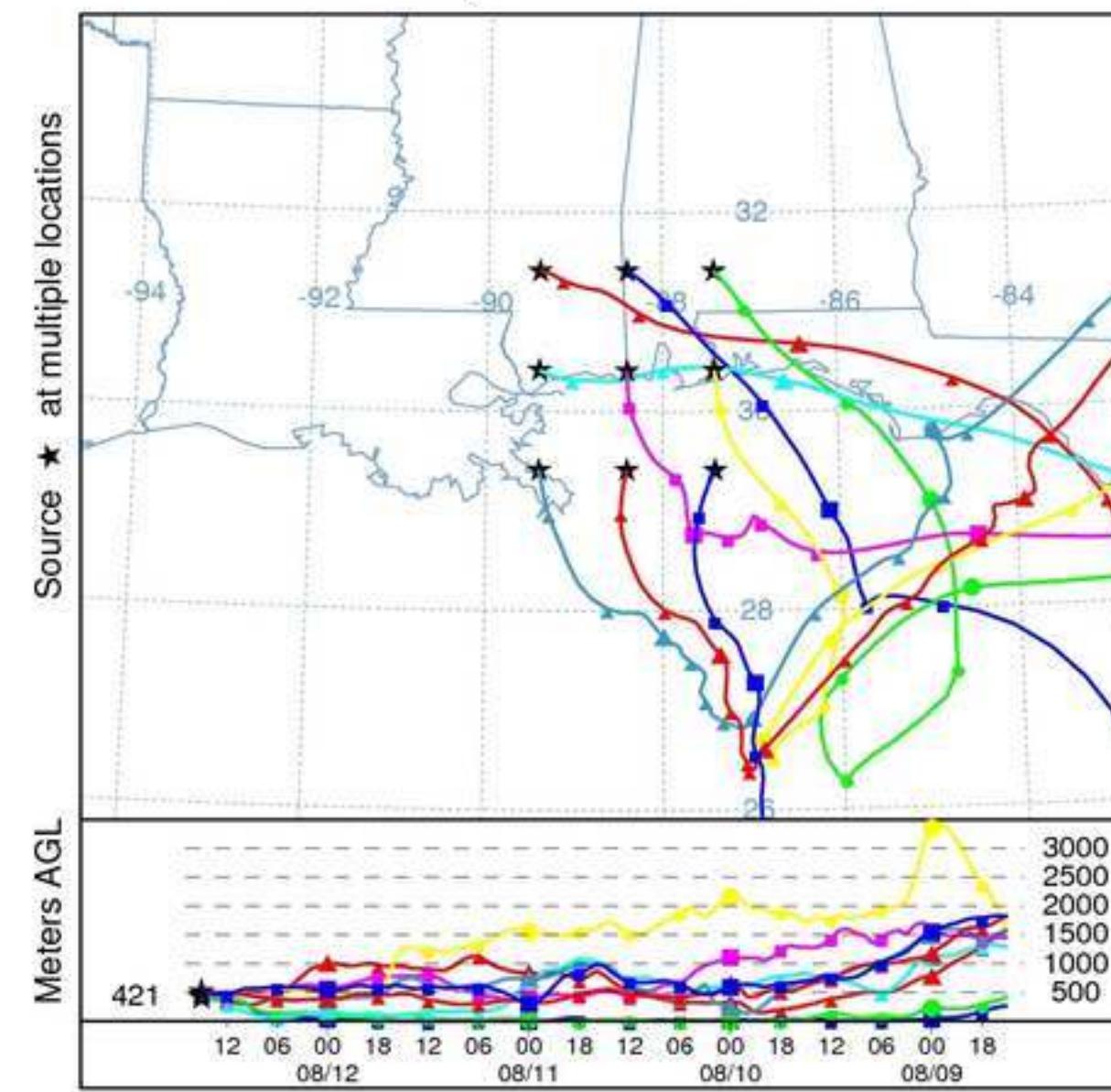


NOAA HYSPLIT MODEL  
Backward trajectories ending at 1500 UTC 12 Aug 10  
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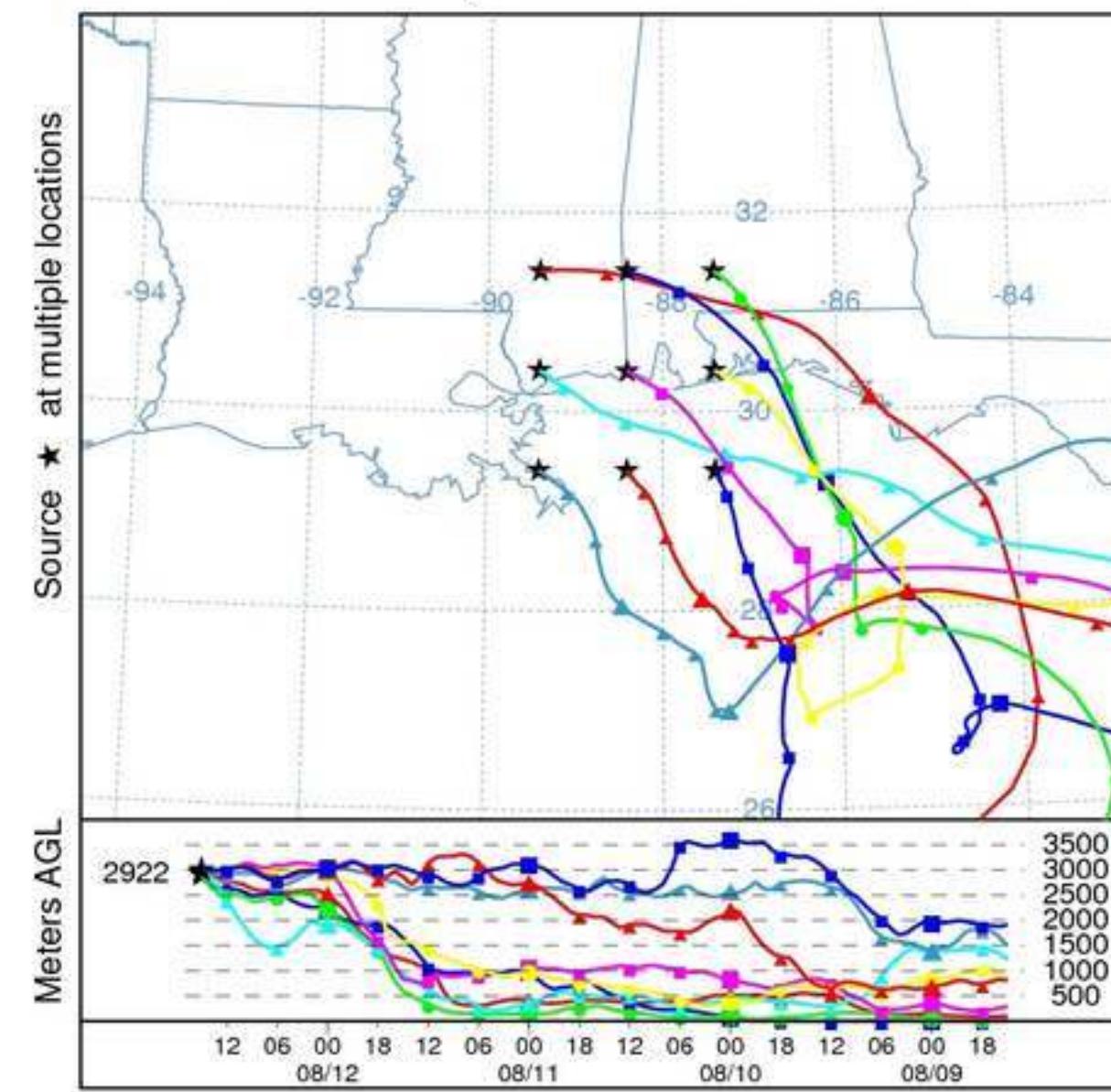
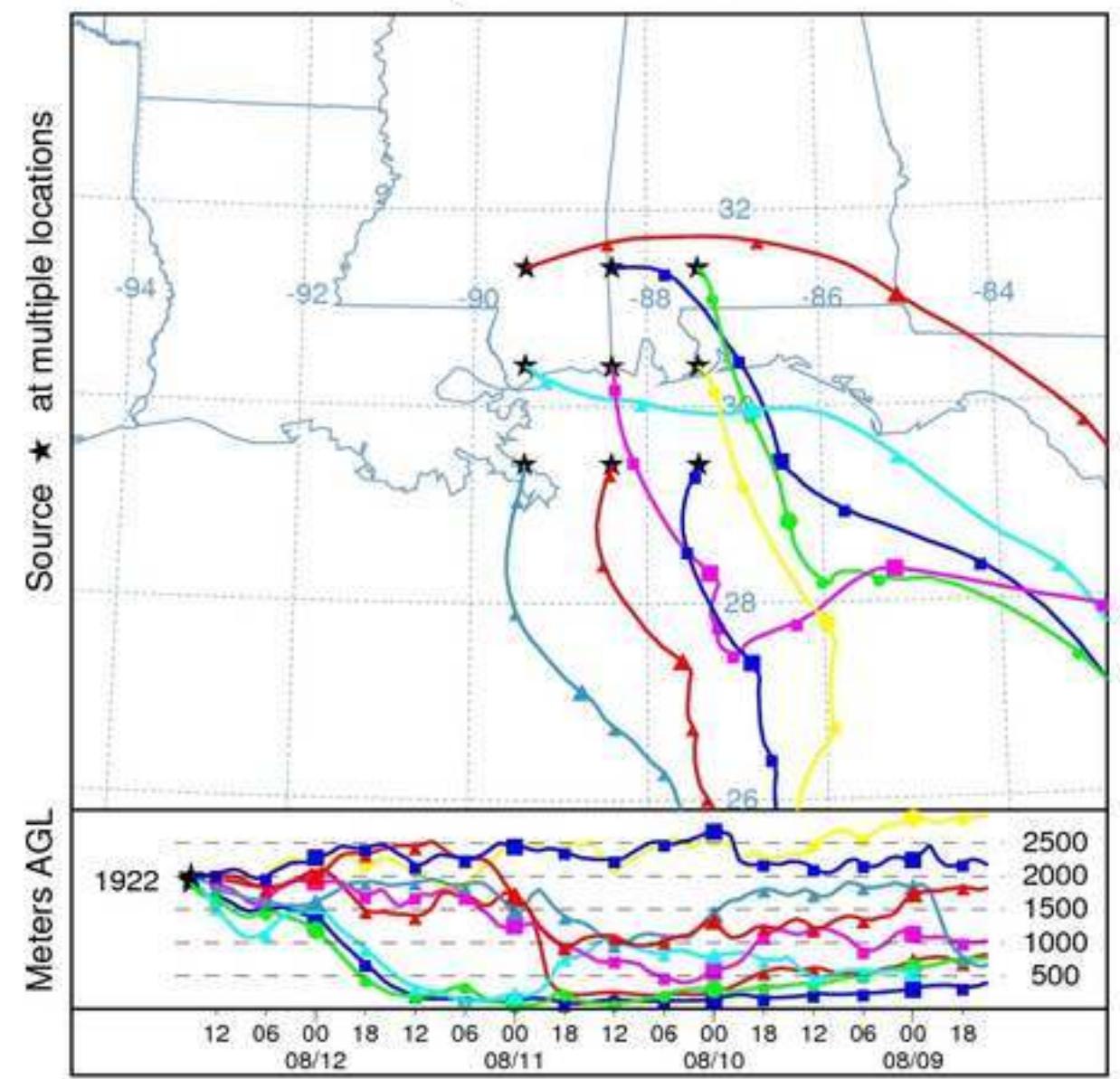
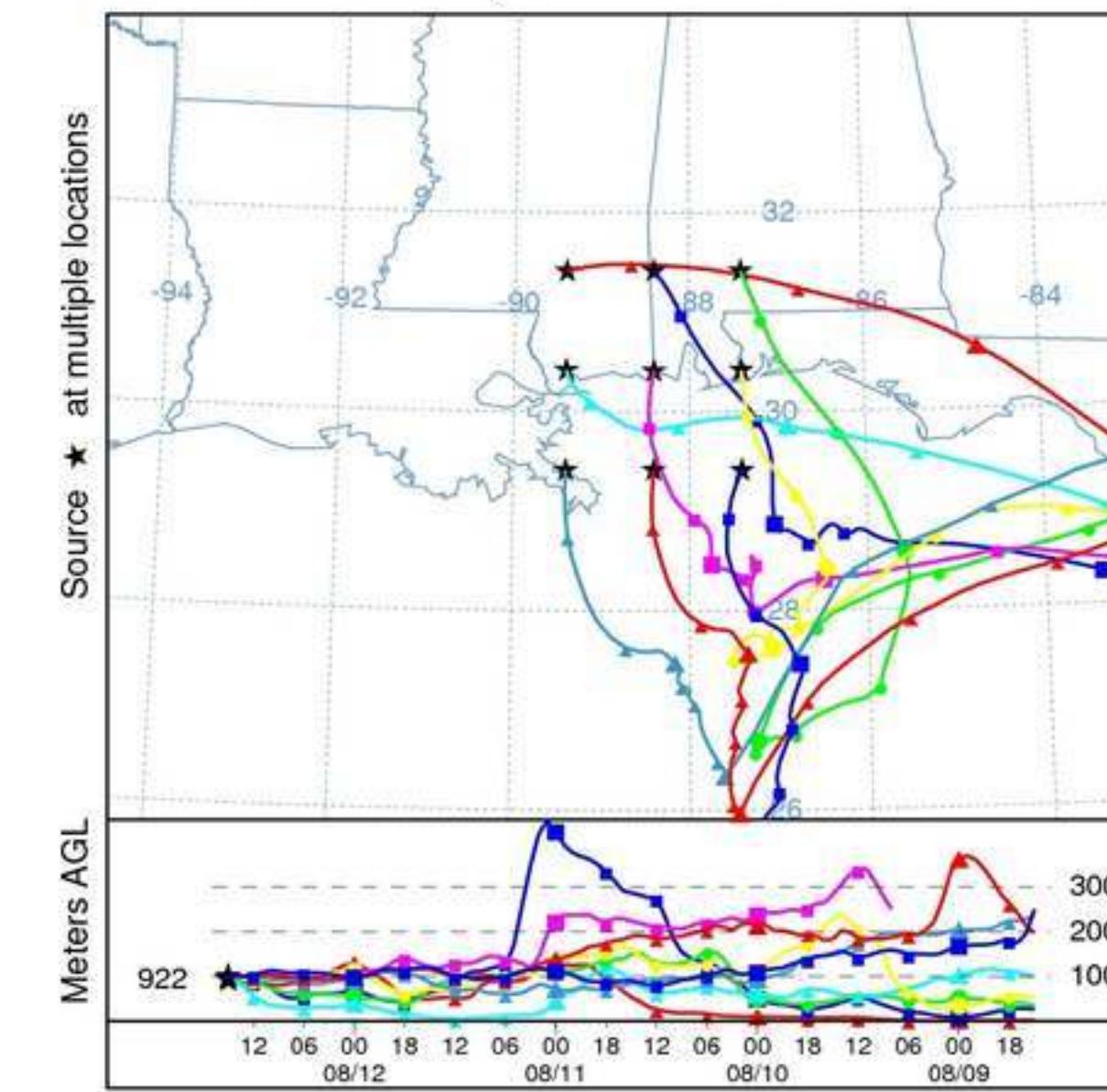


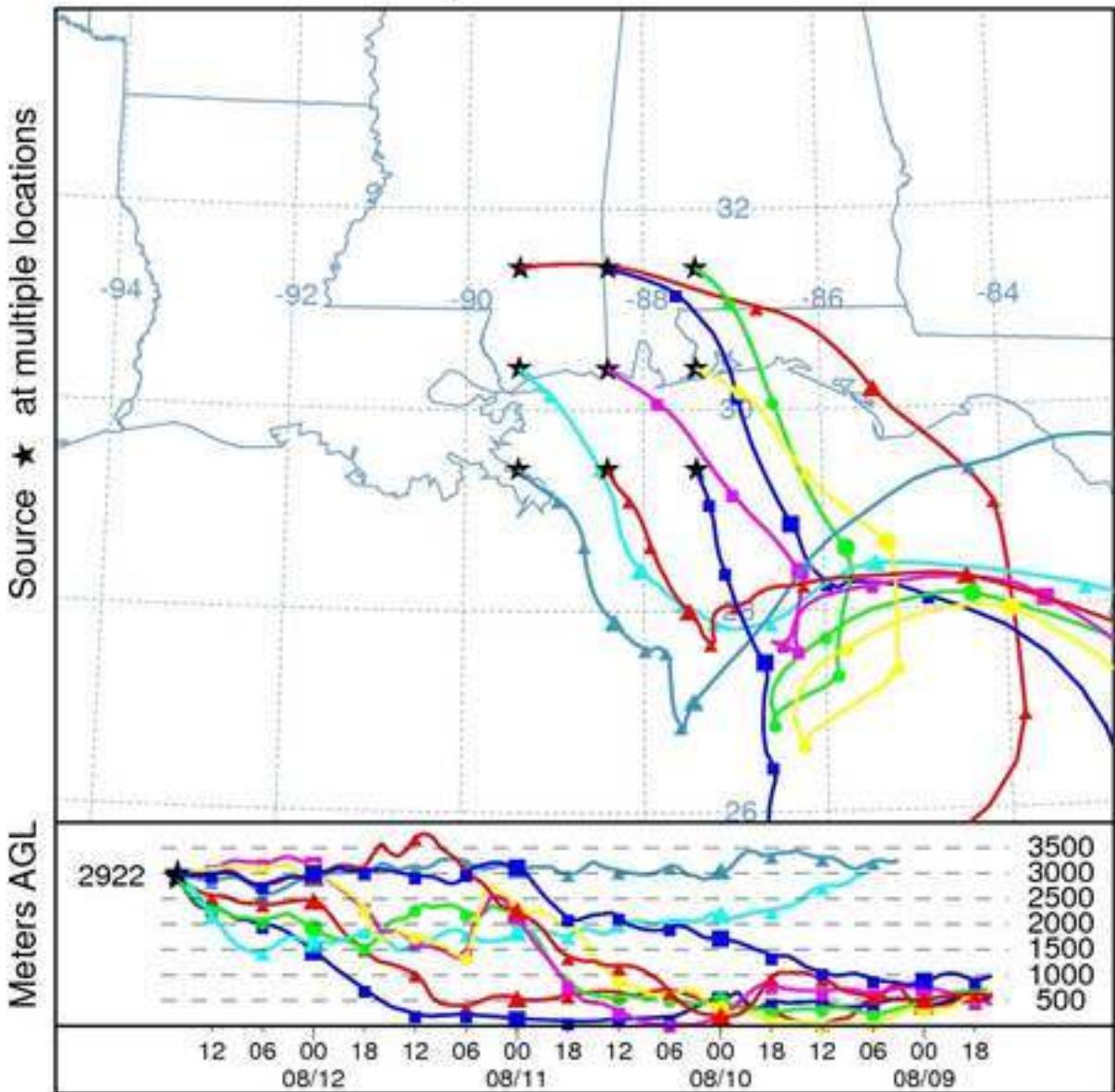
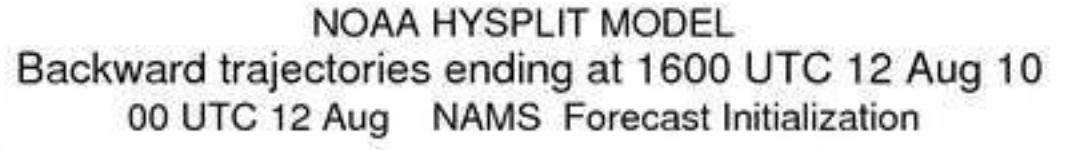
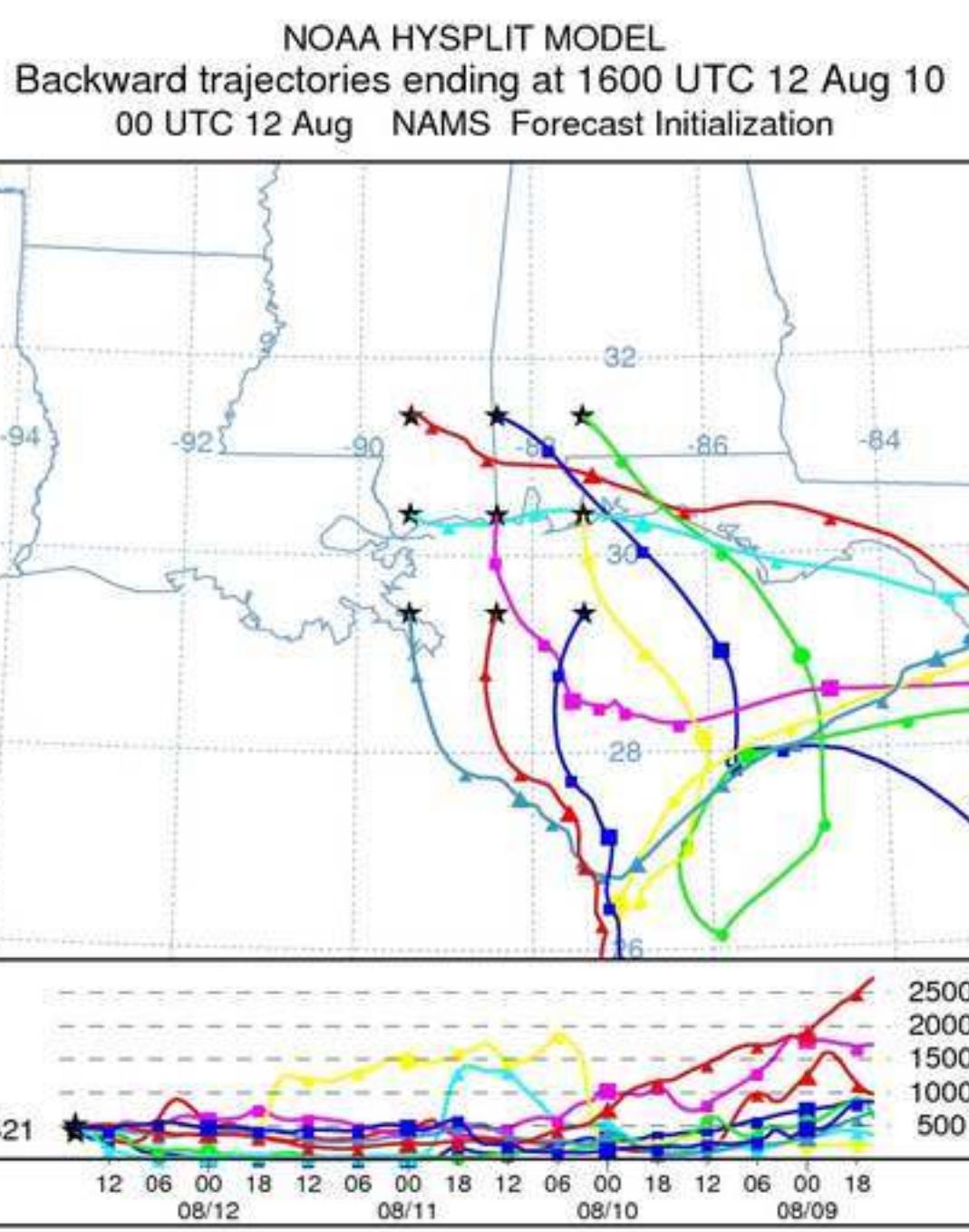
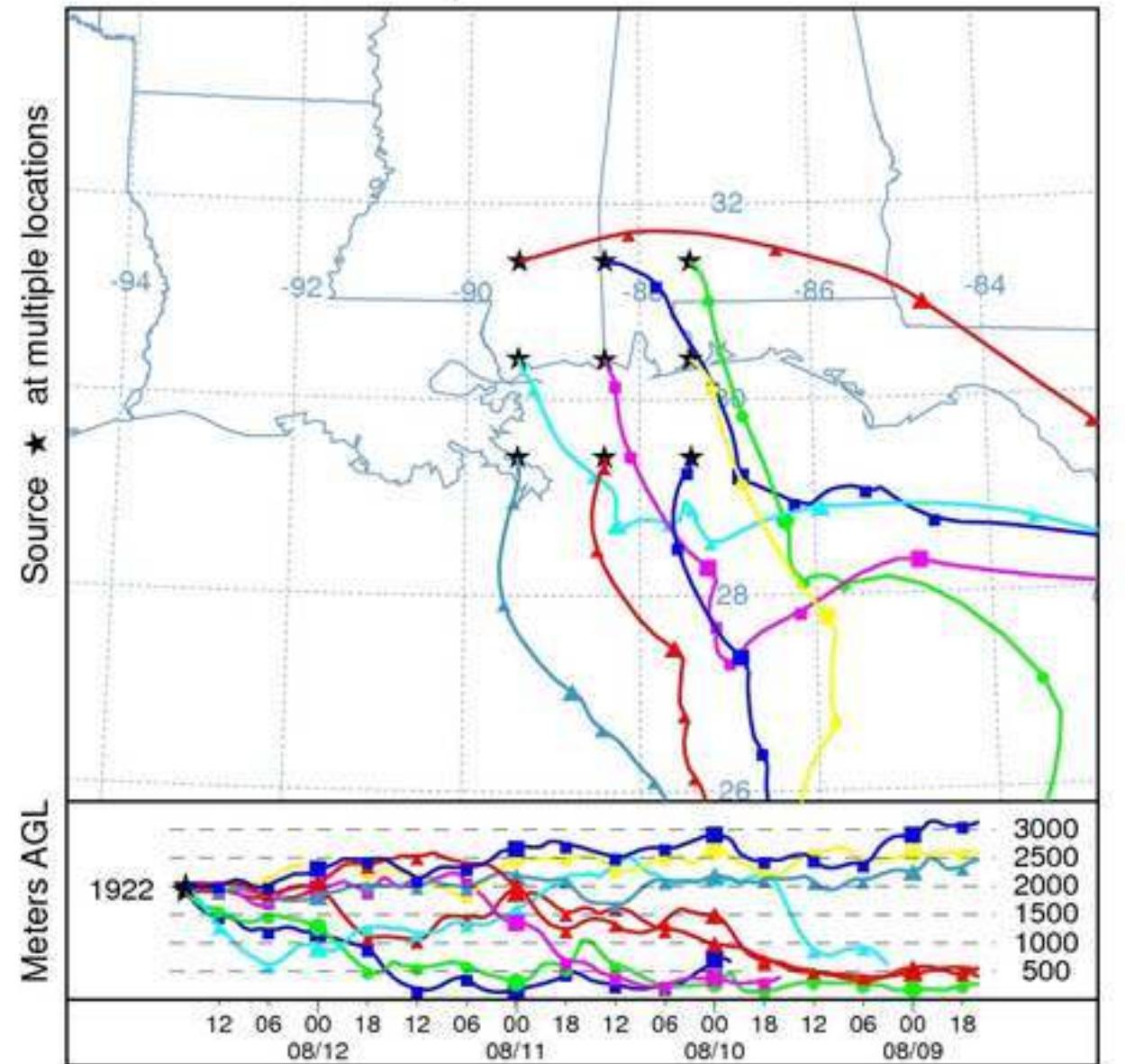
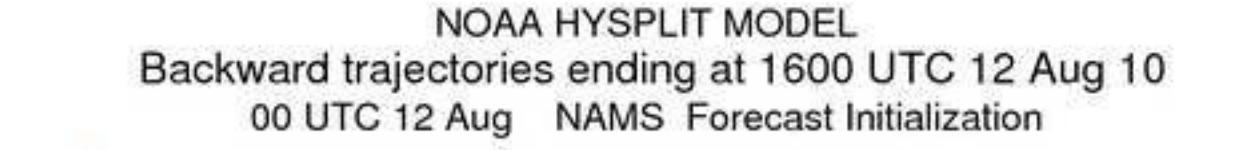
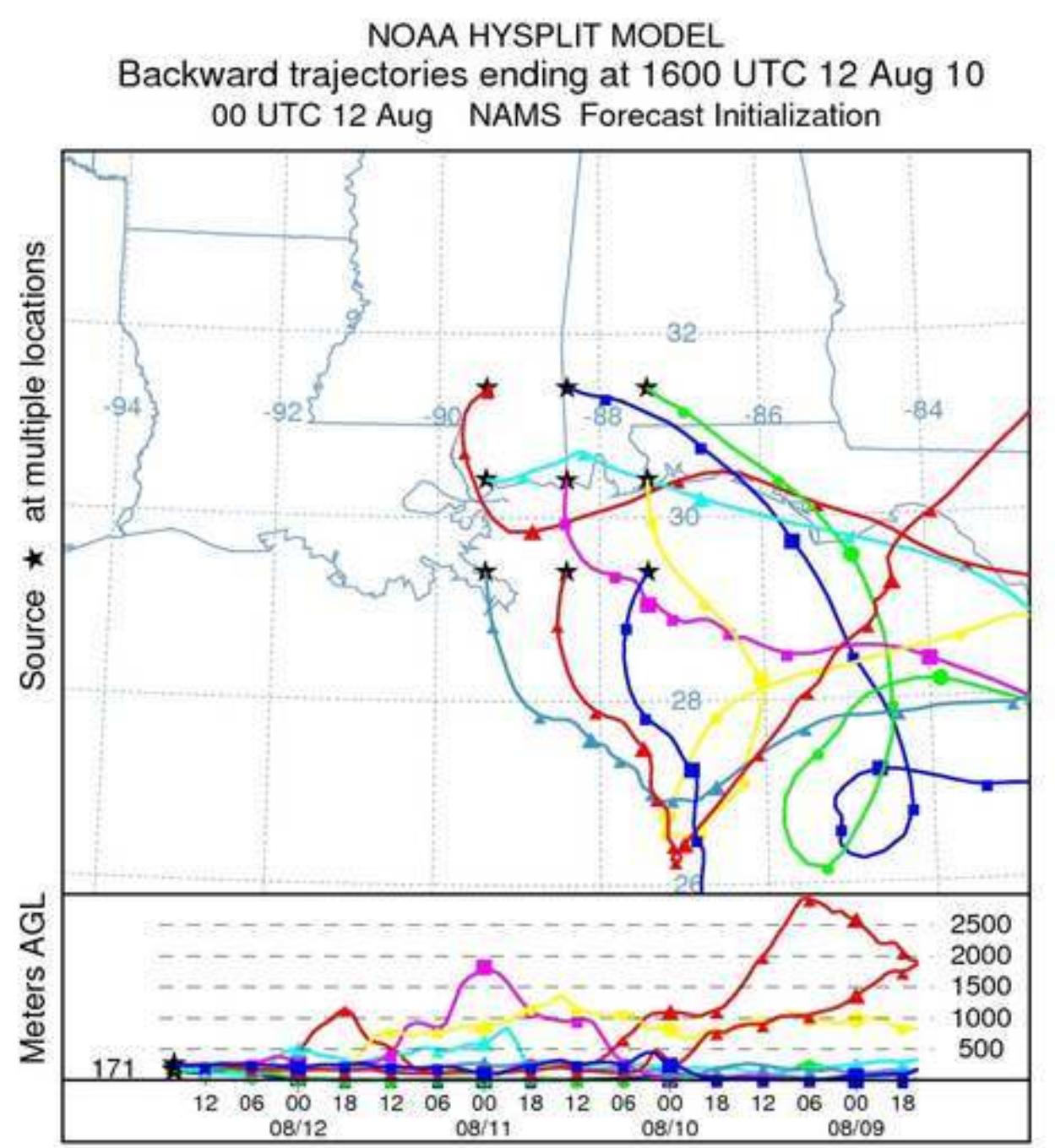
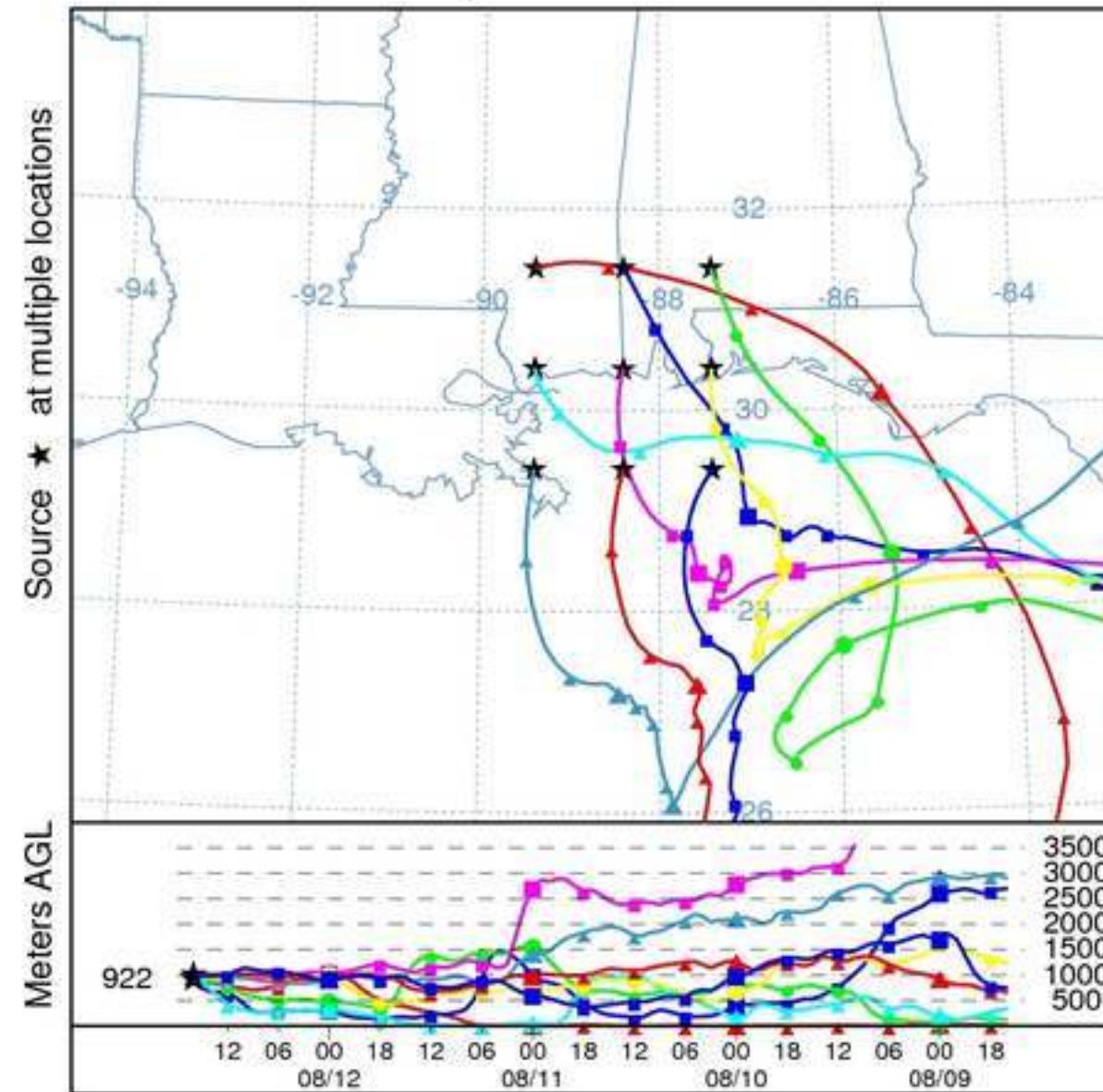
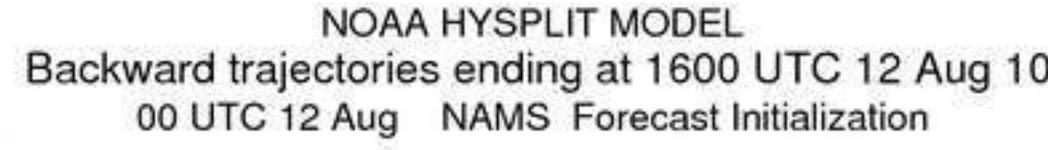
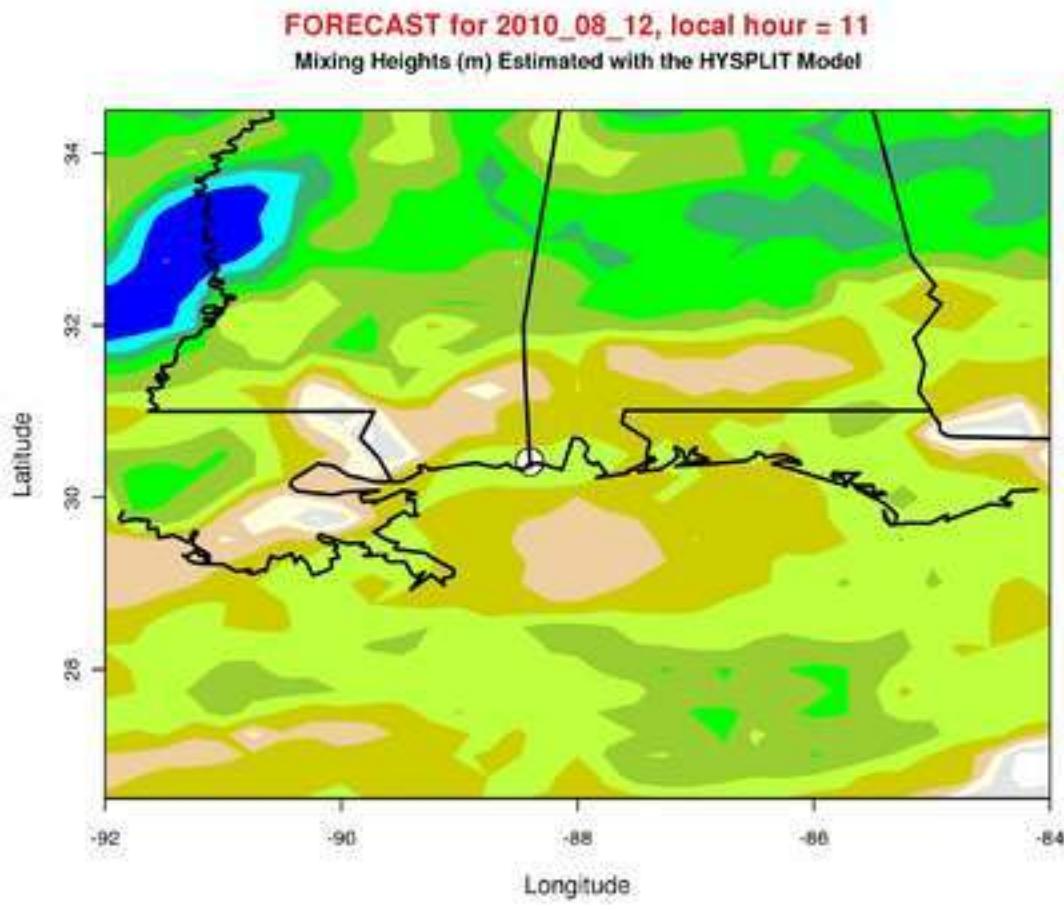
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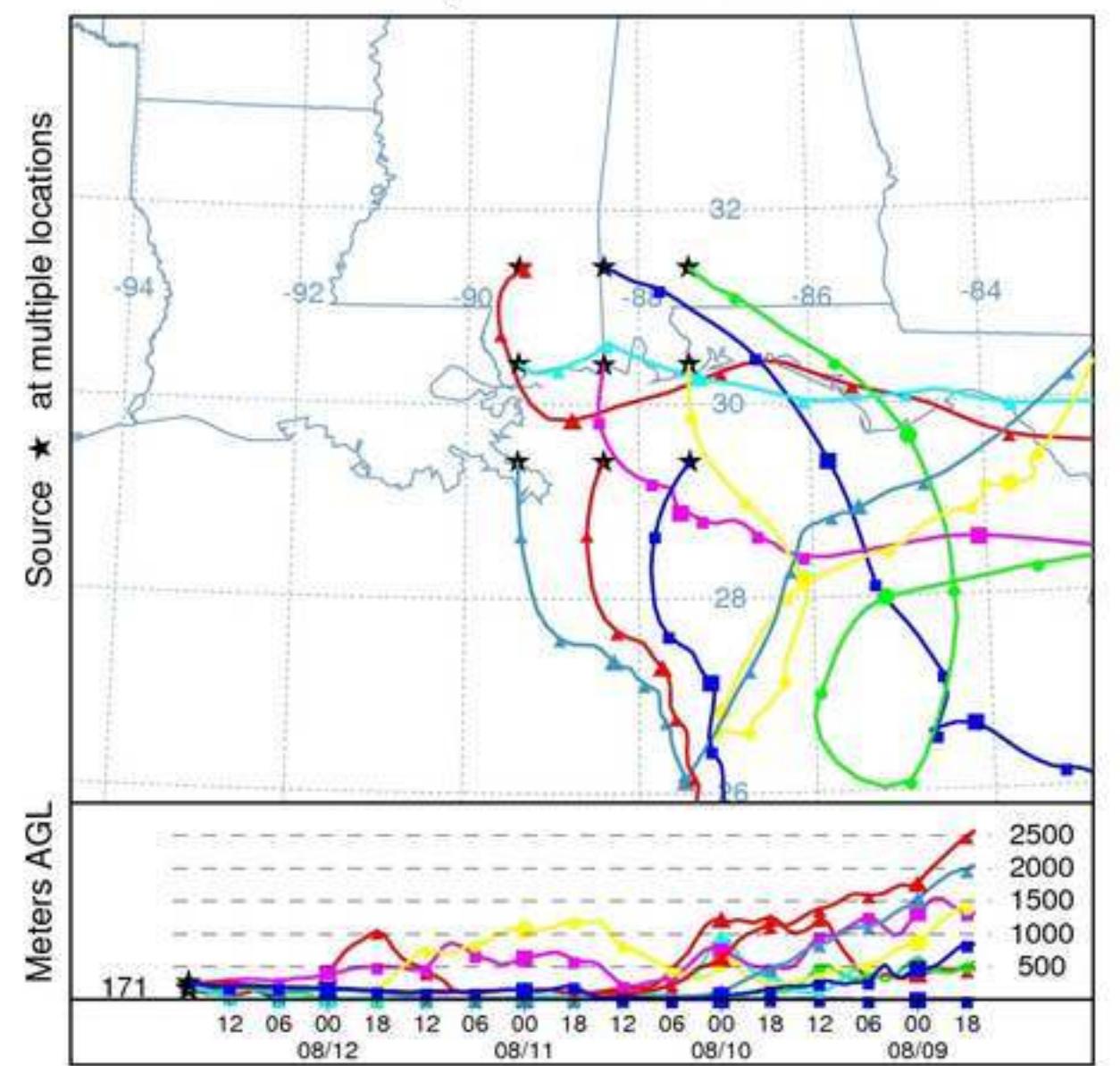
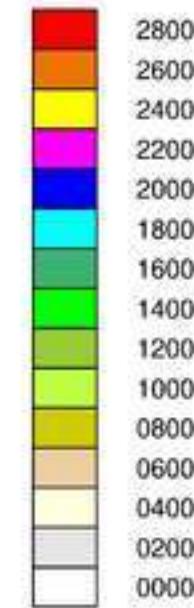
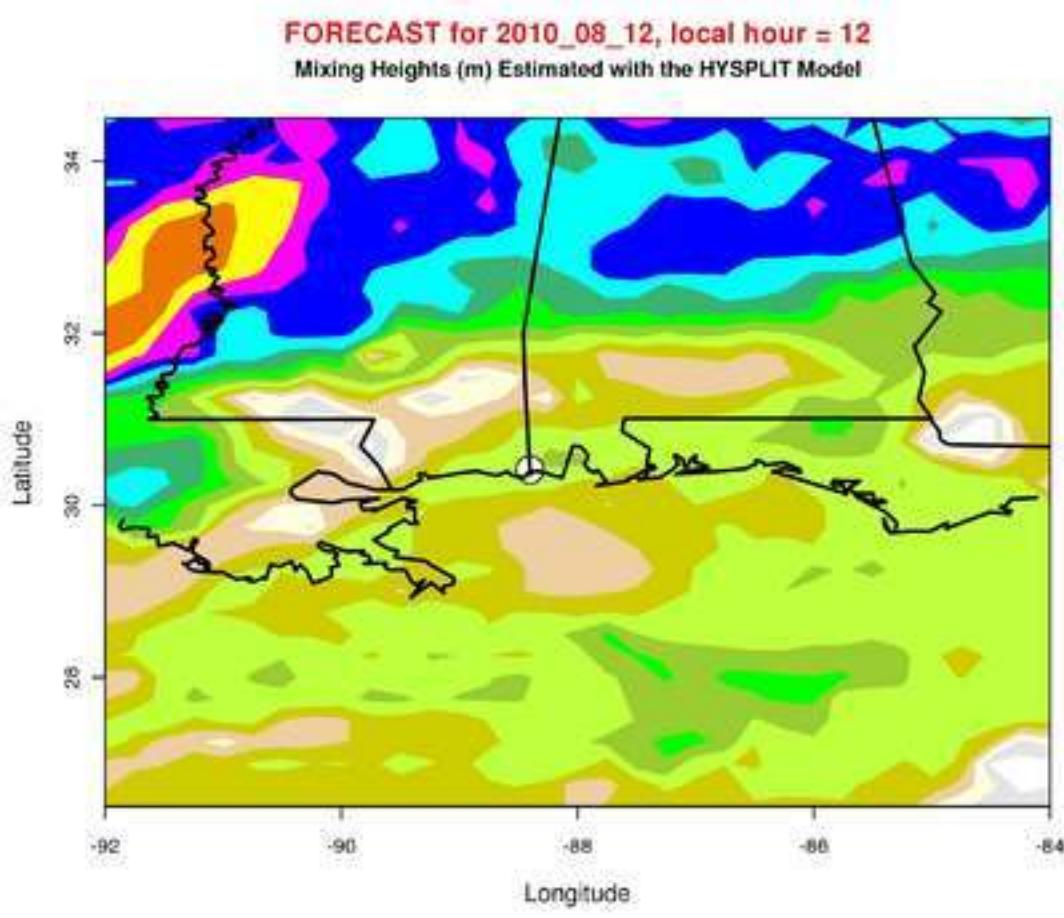
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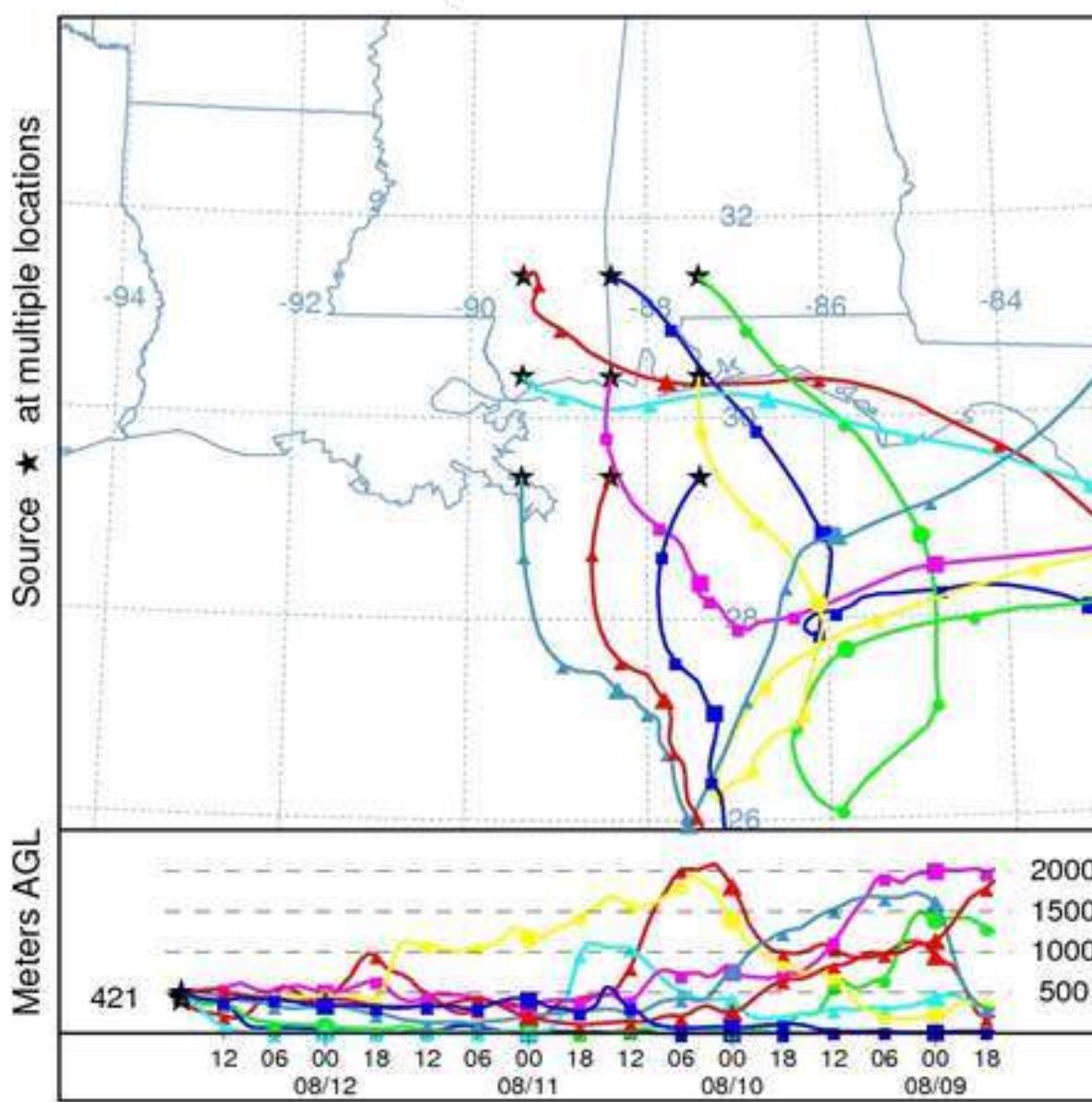


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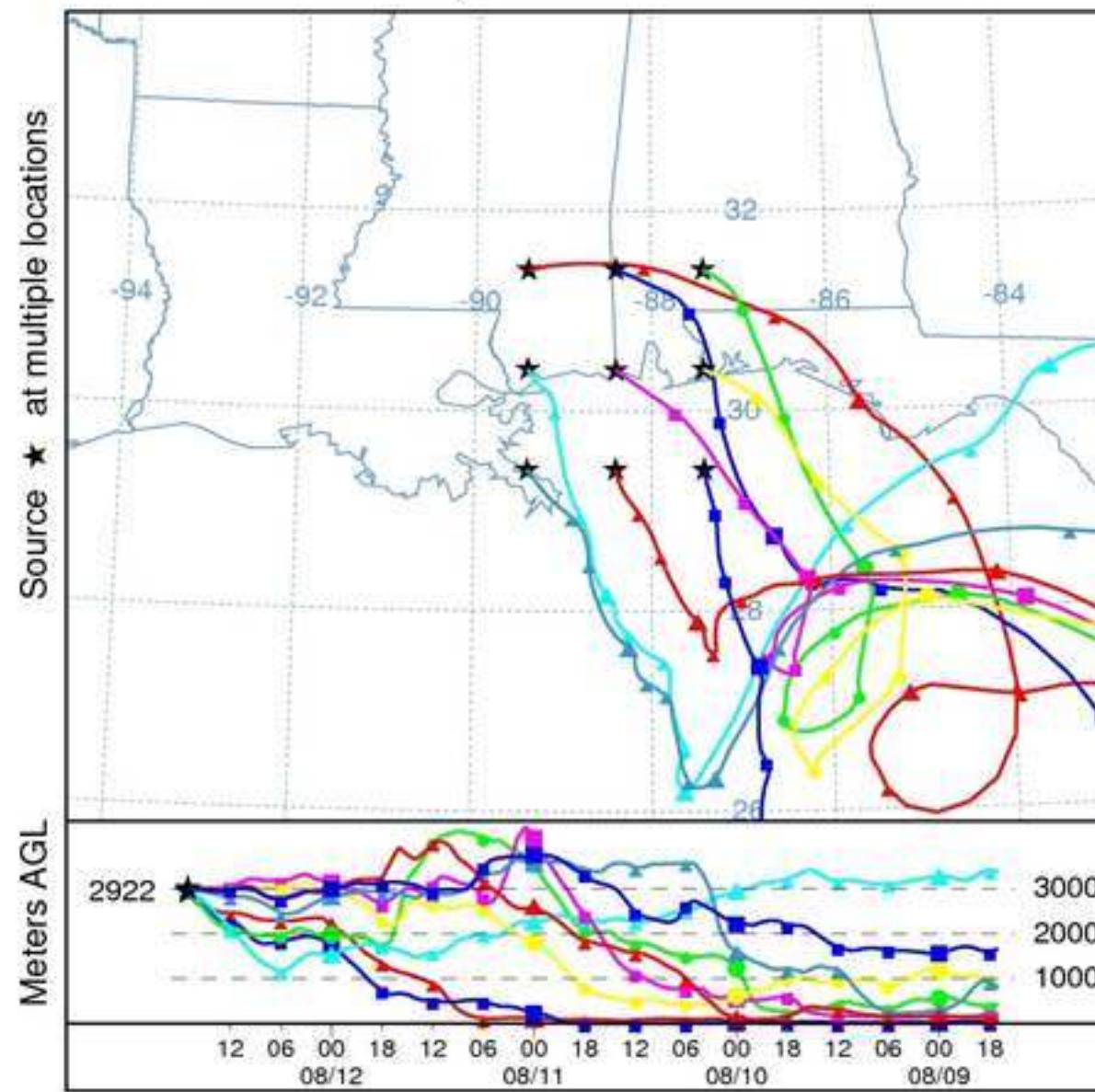
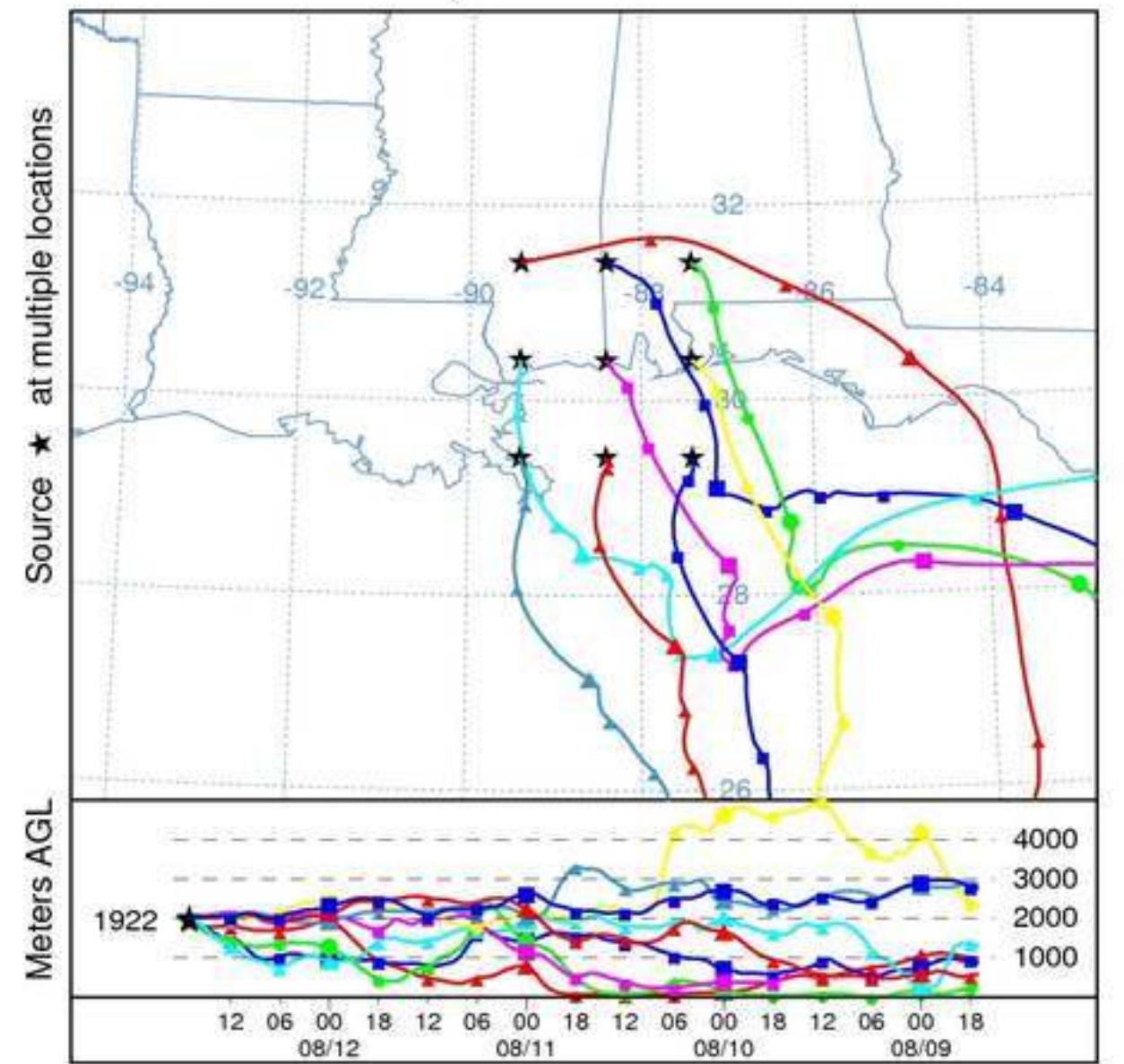
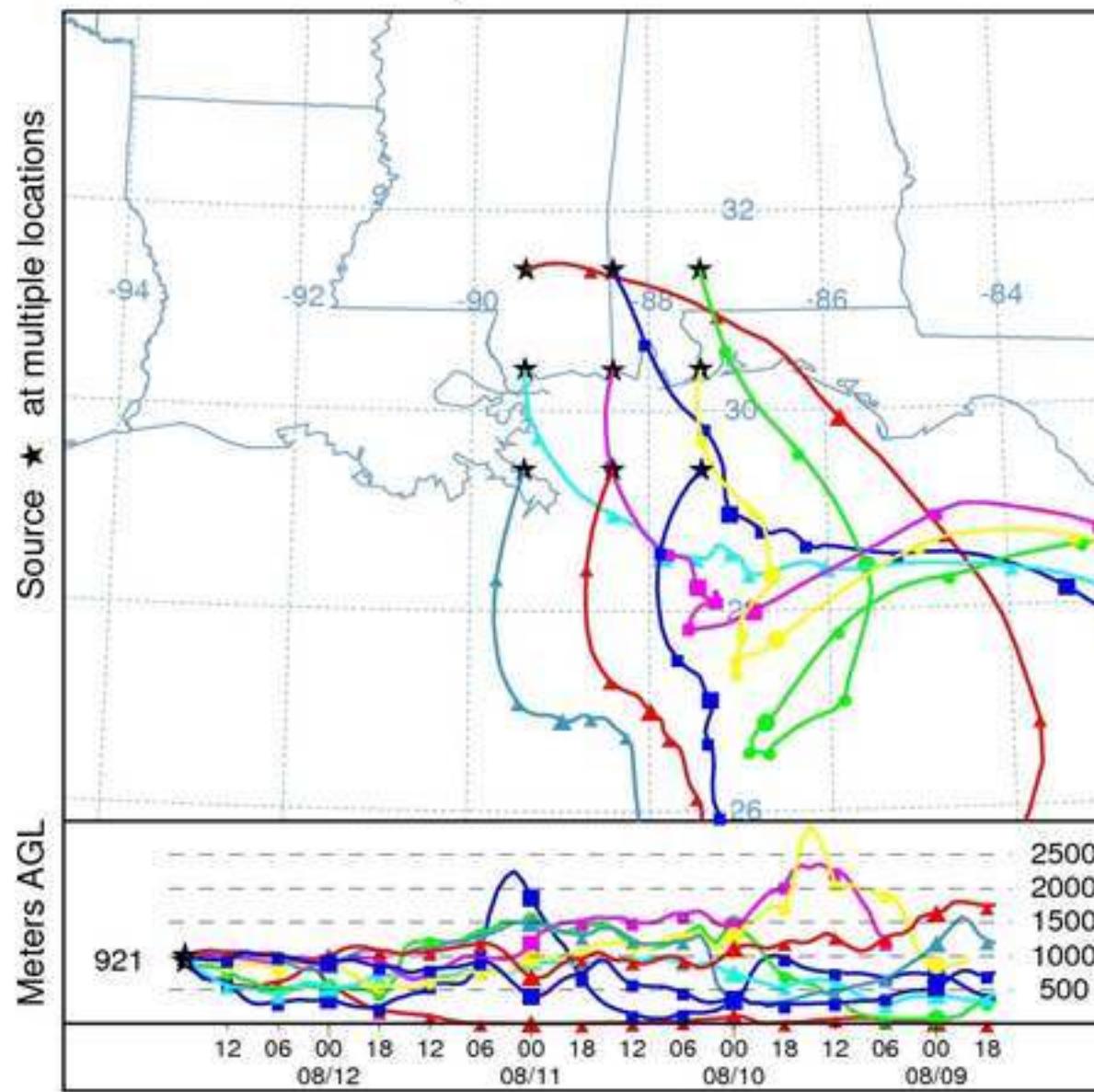
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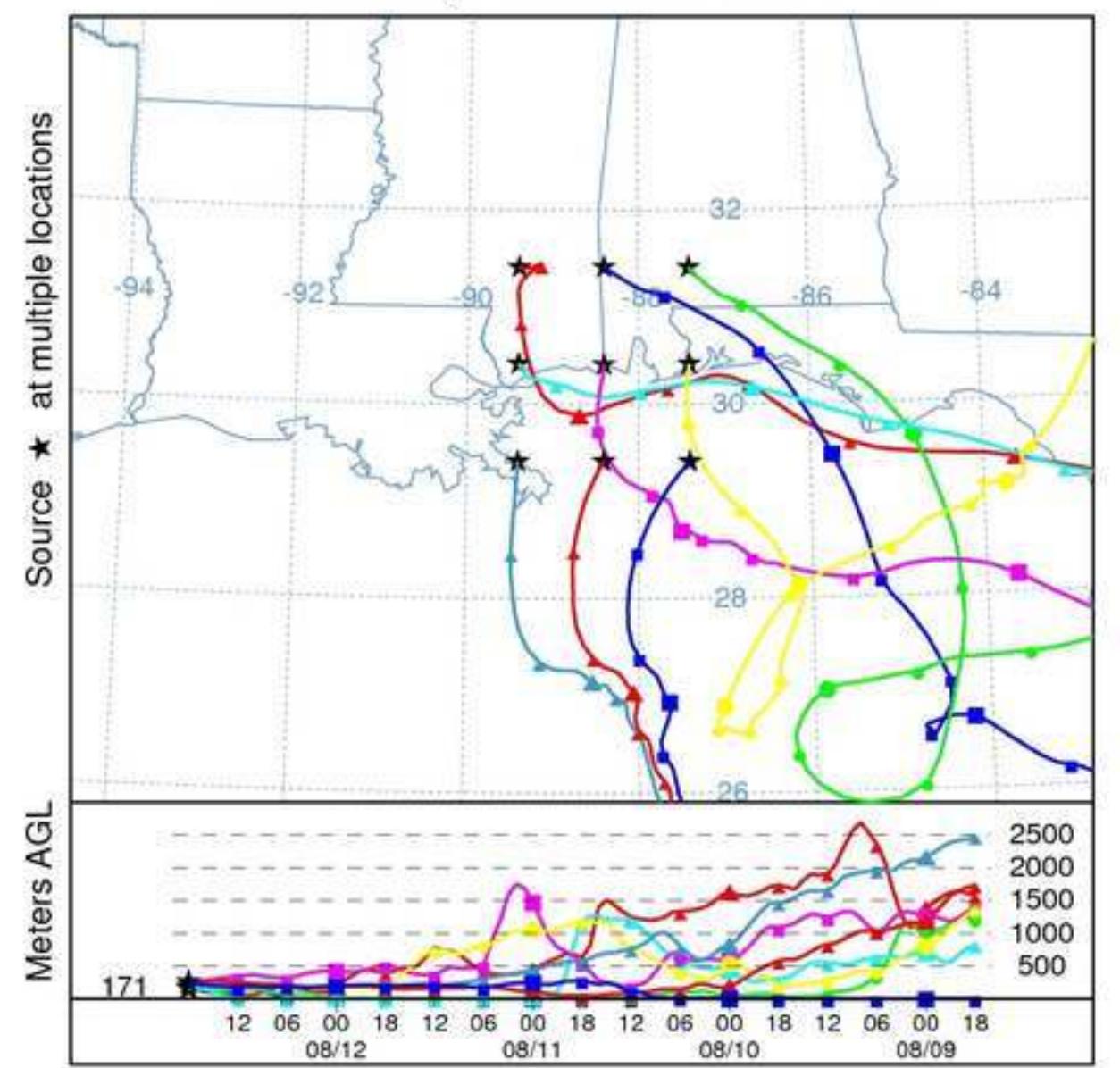
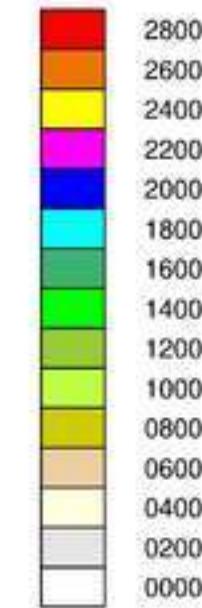
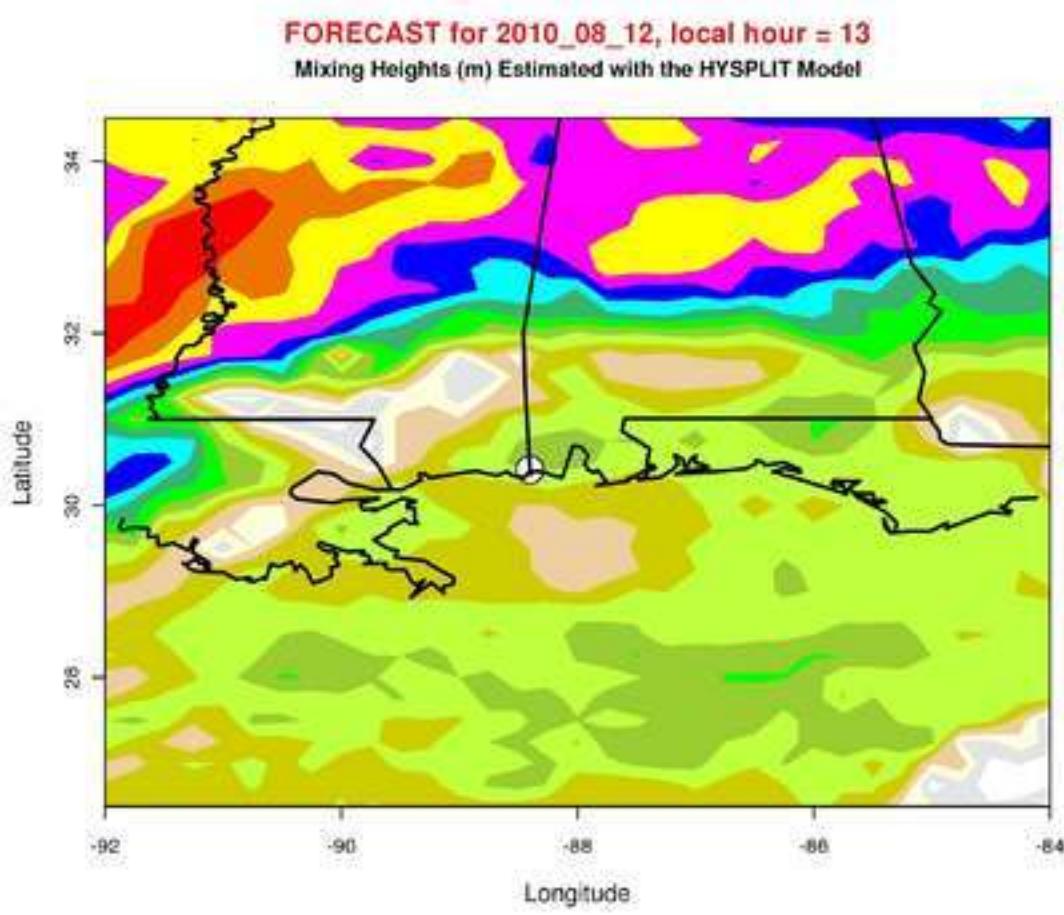


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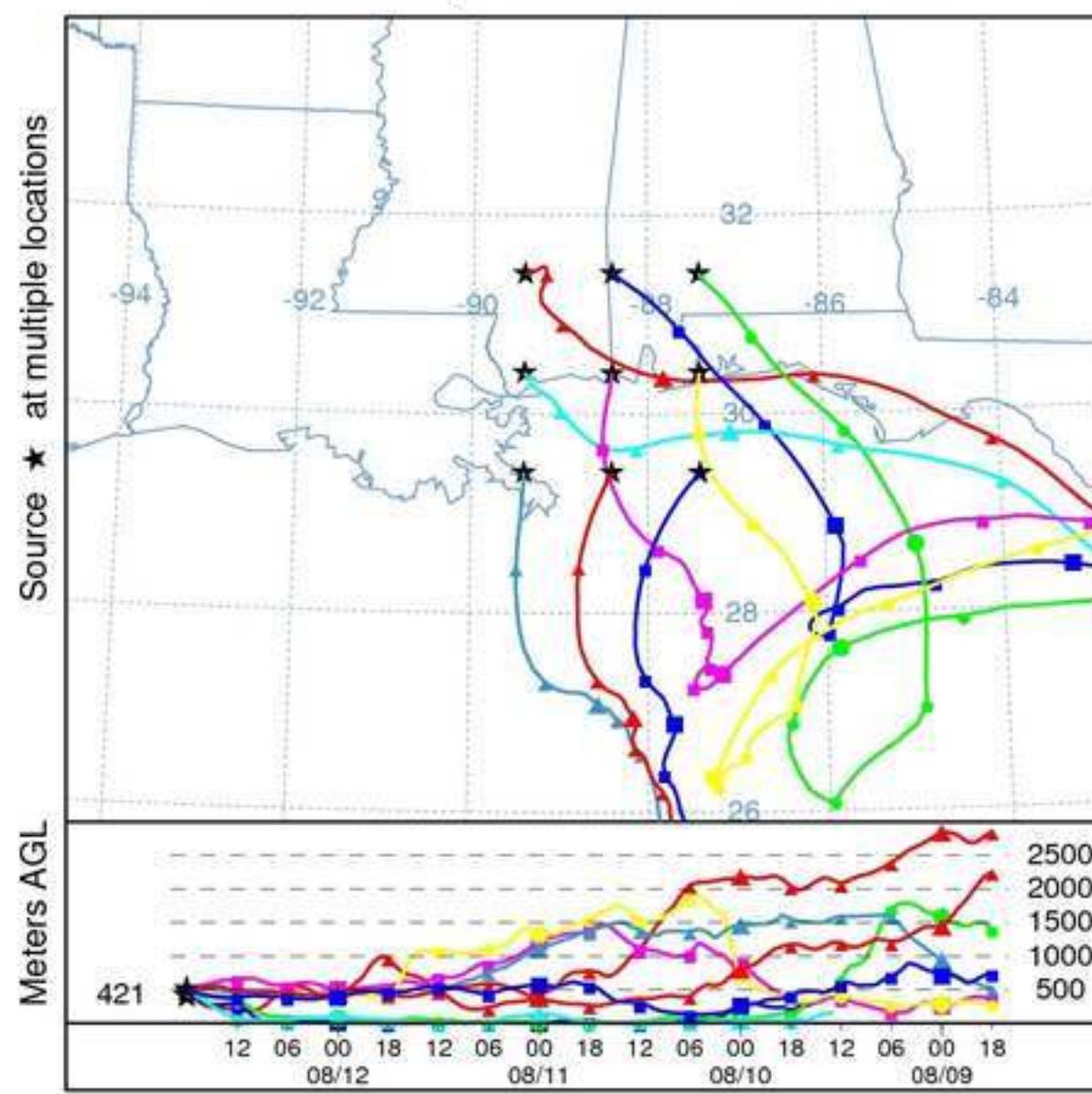


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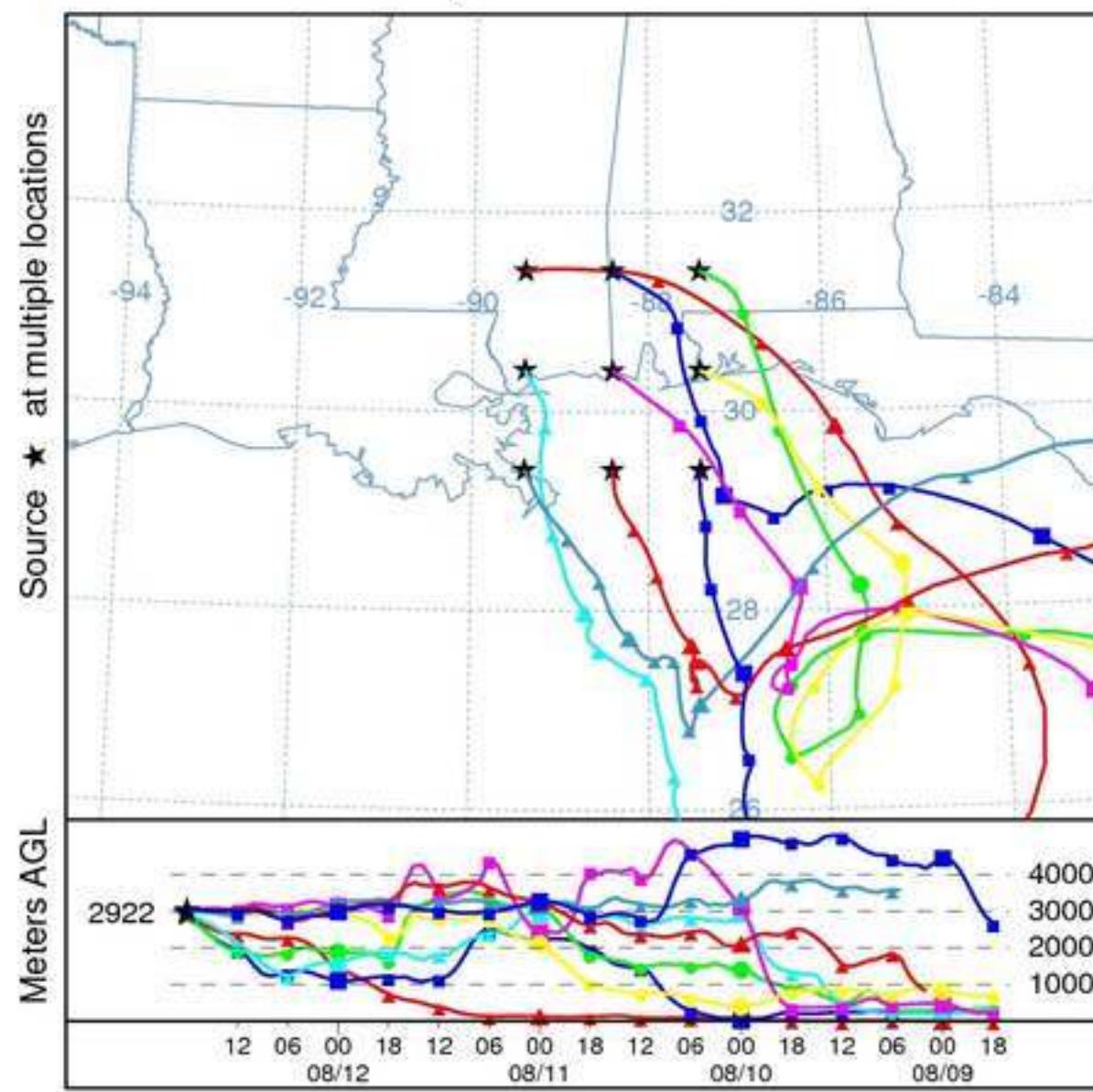
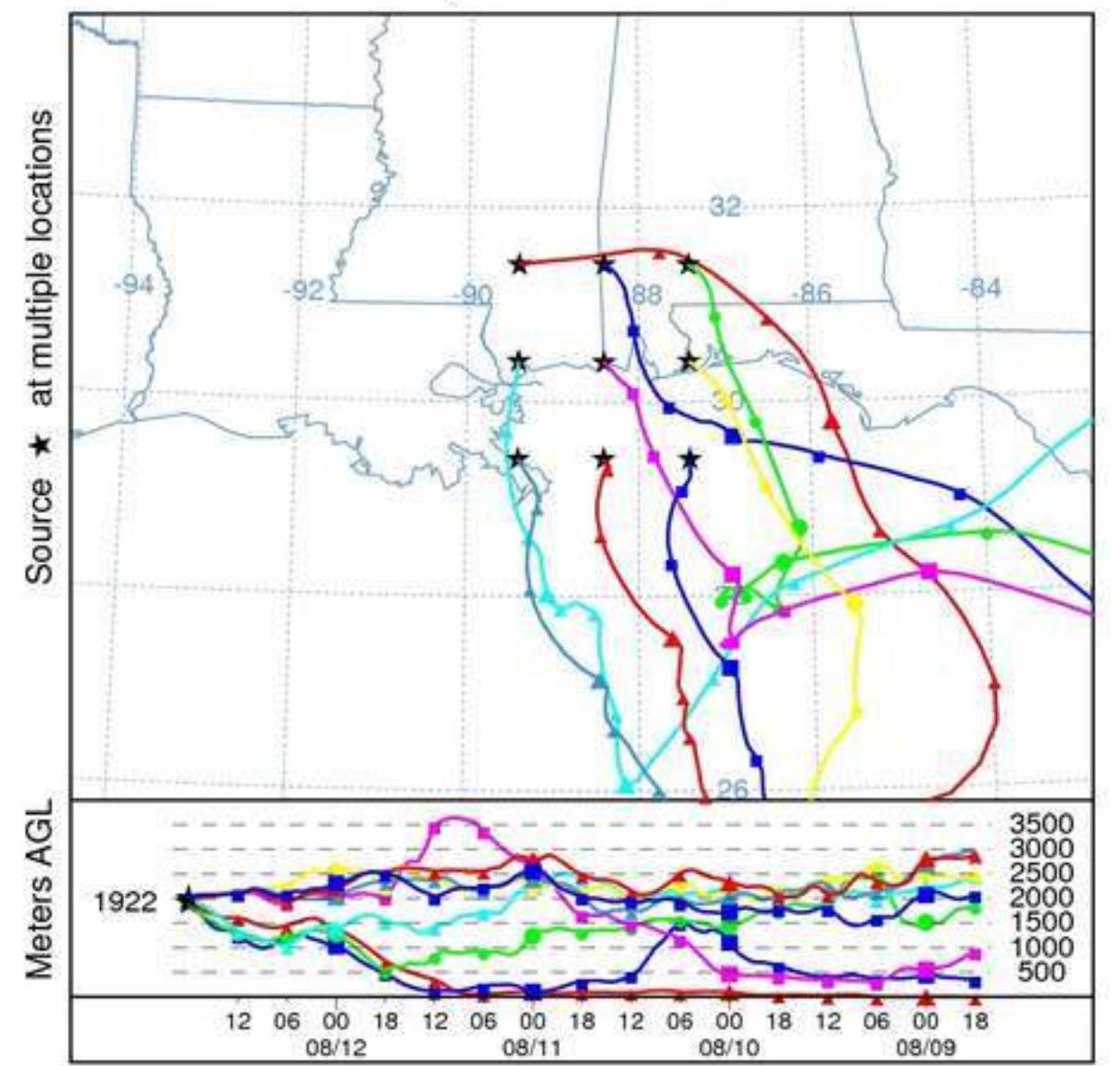
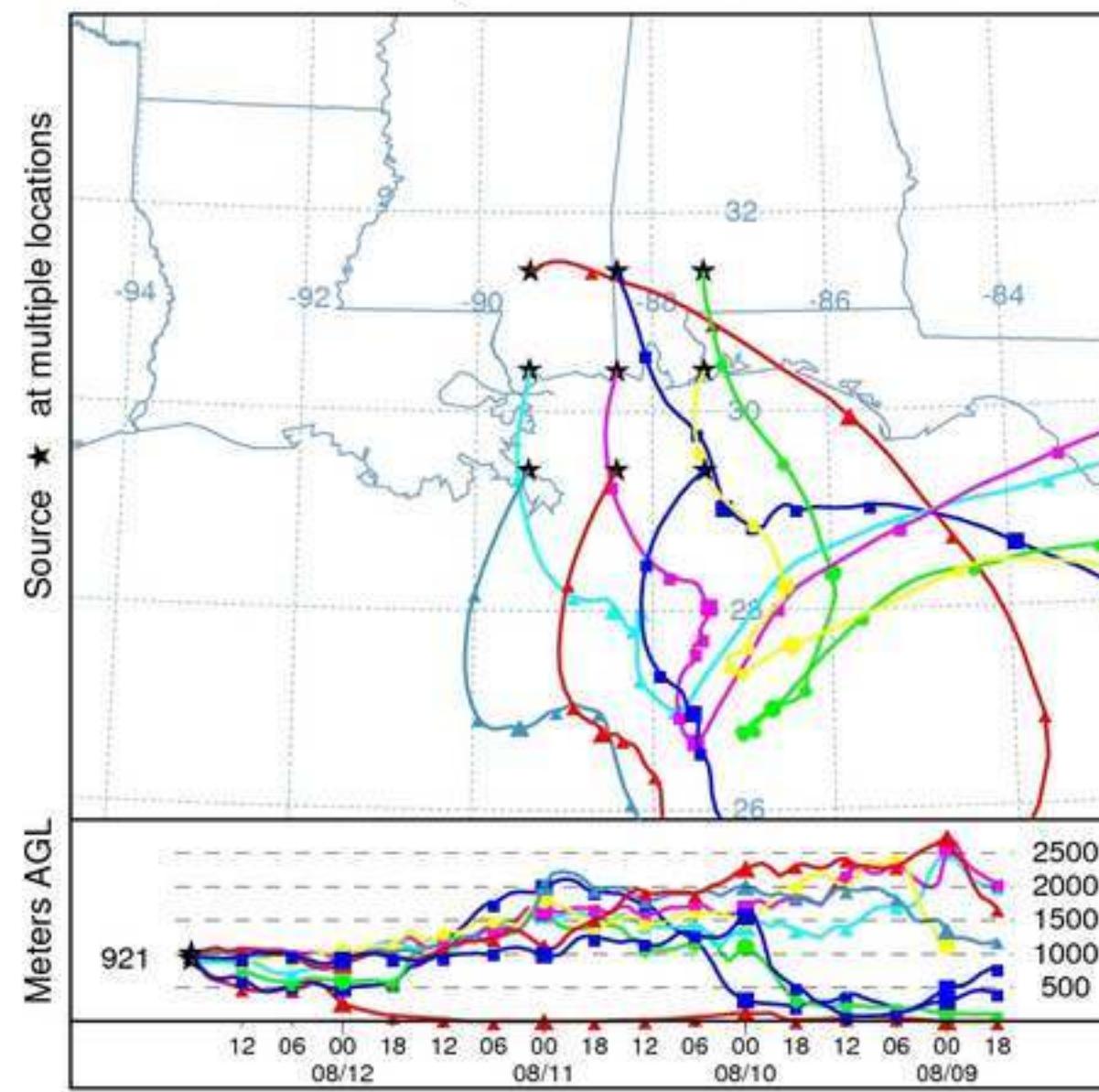


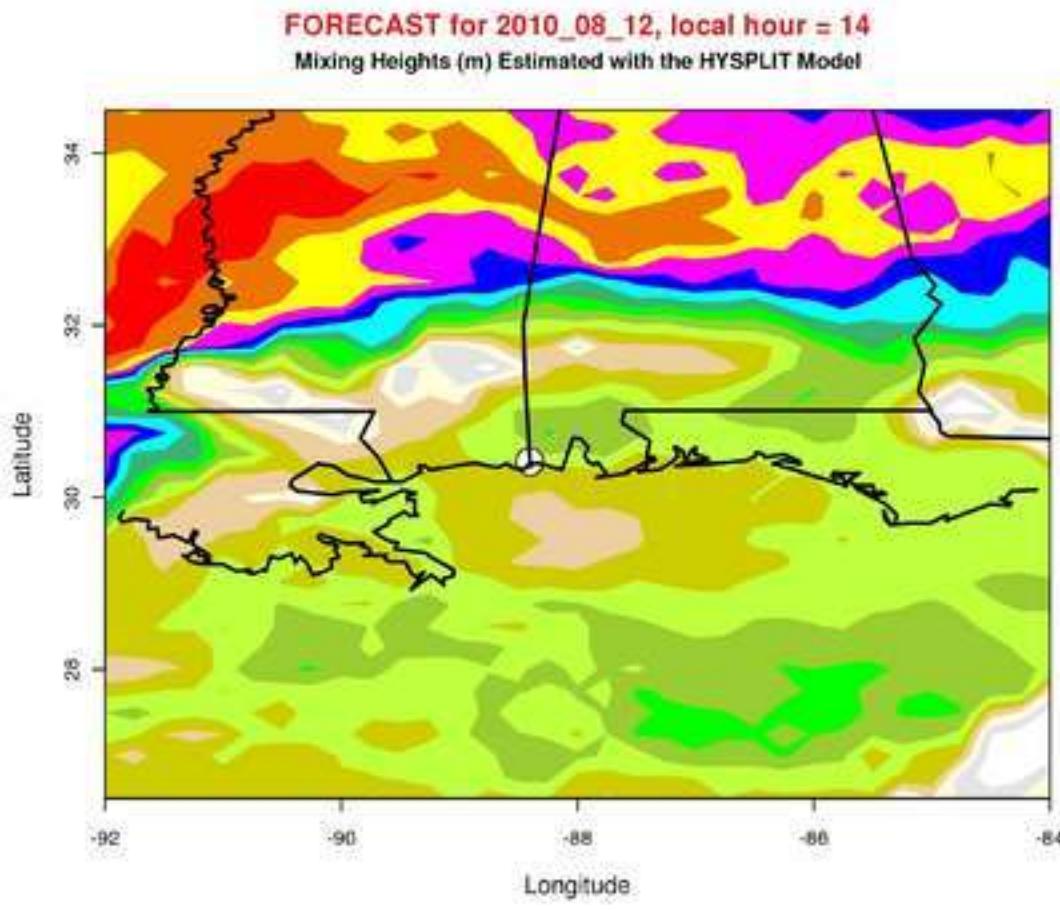
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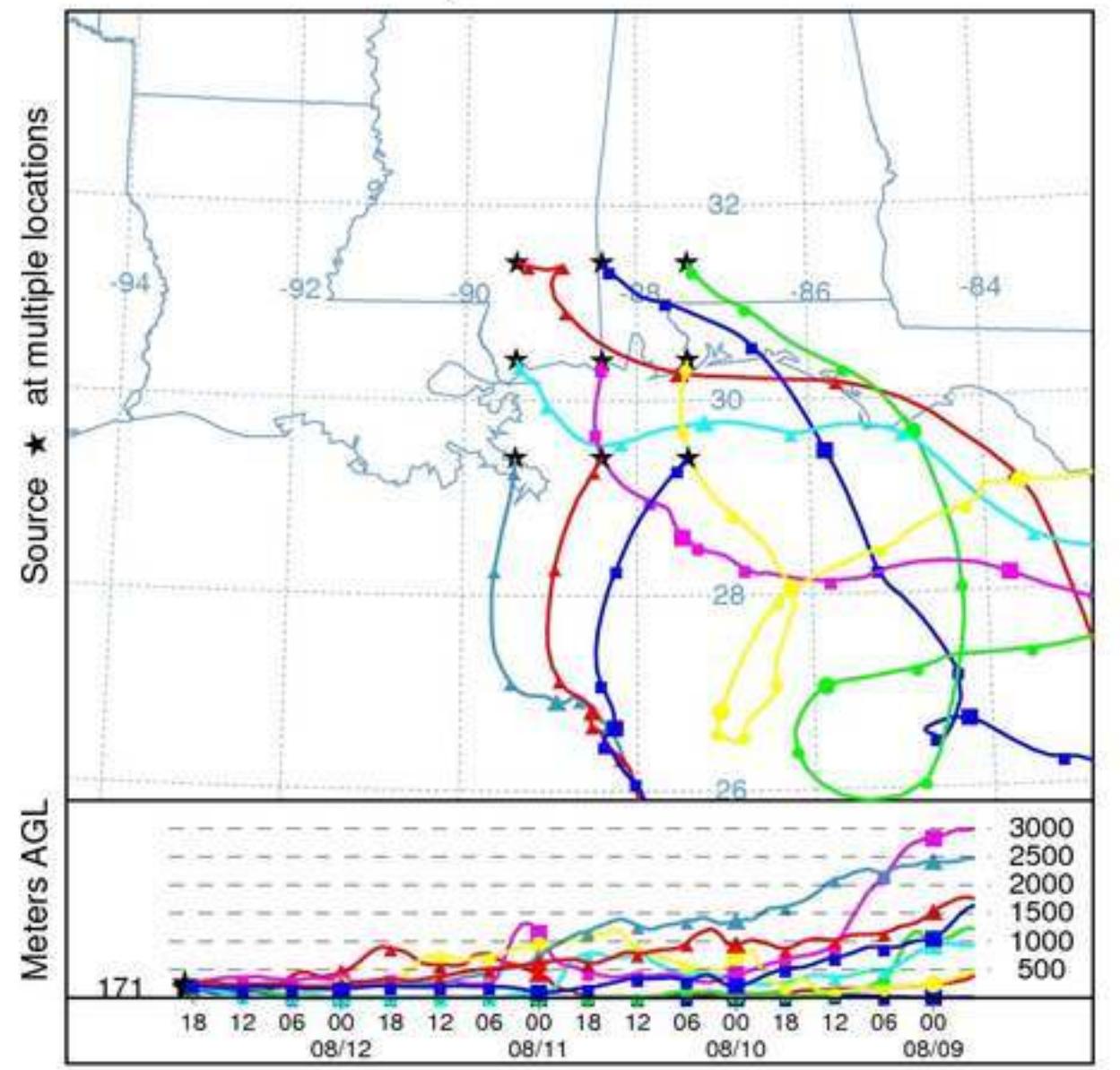


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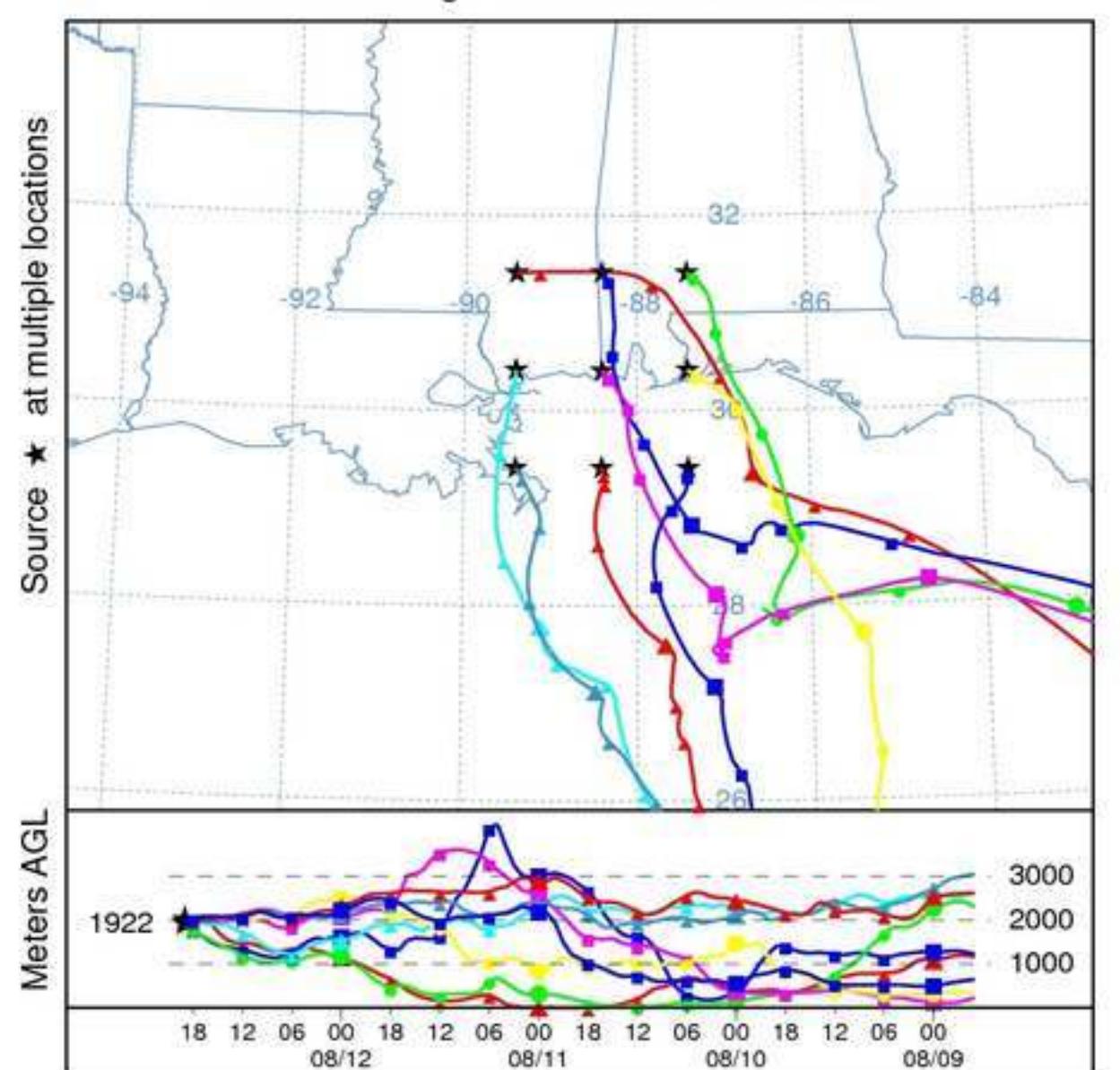




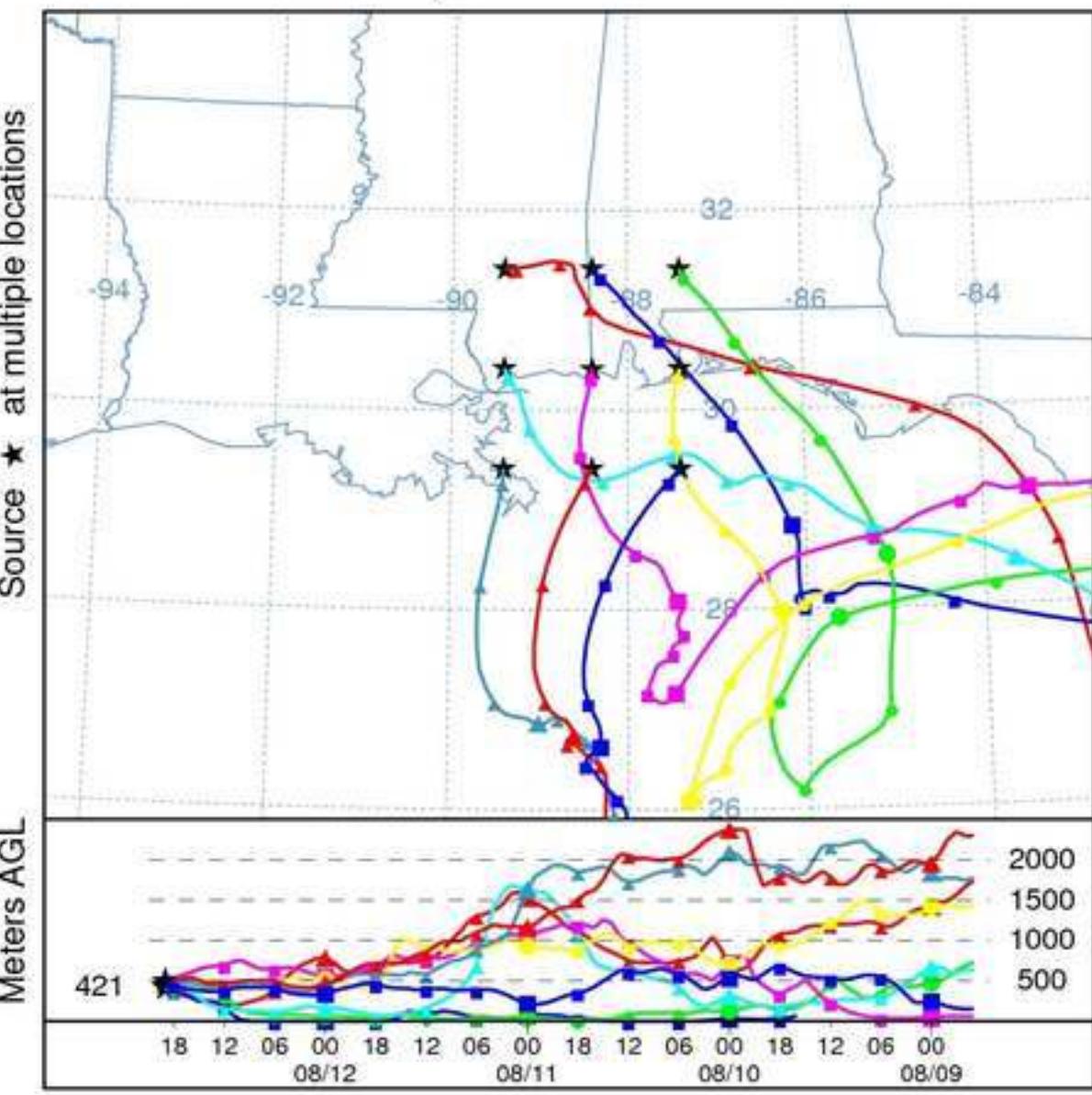
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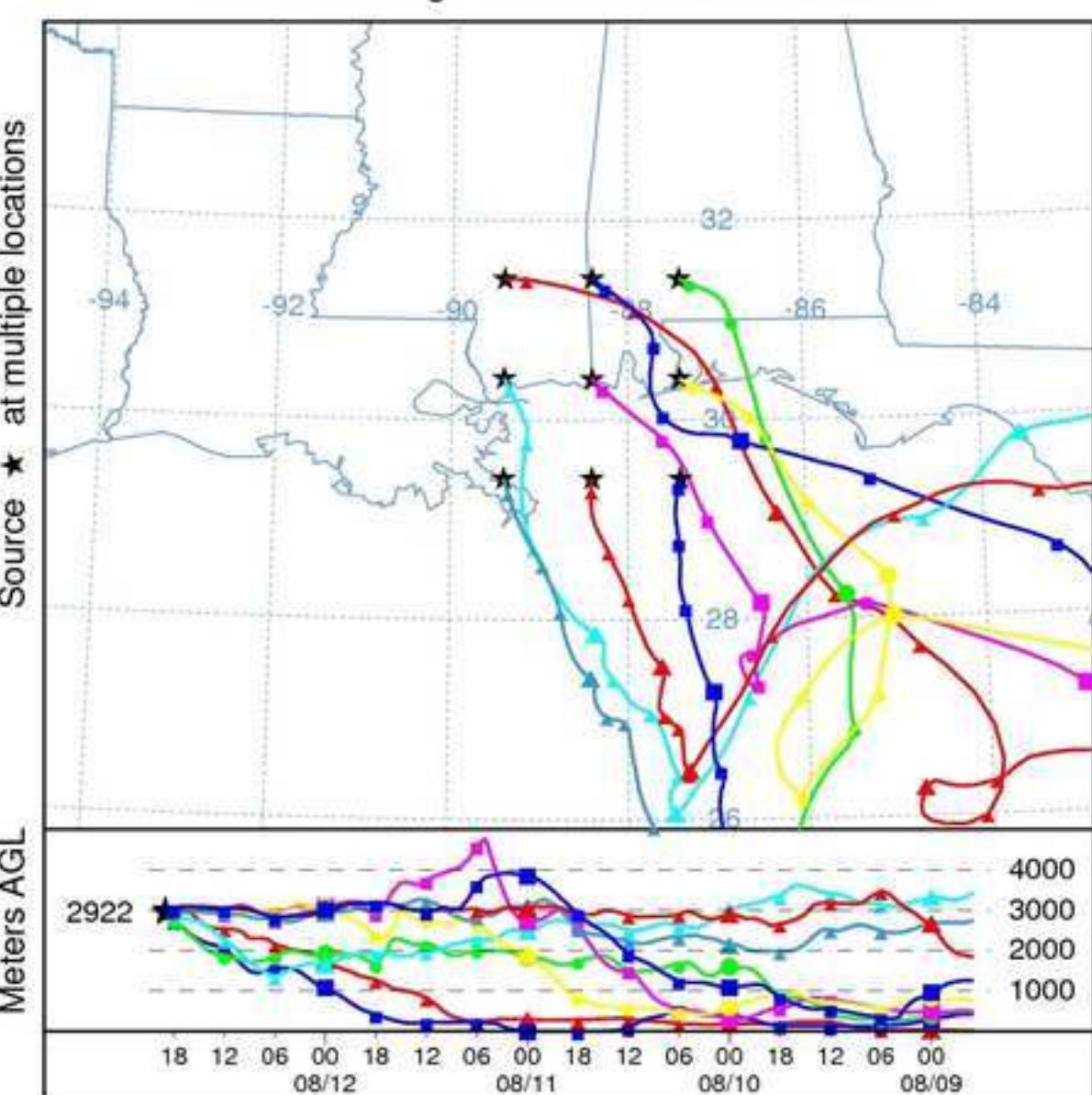
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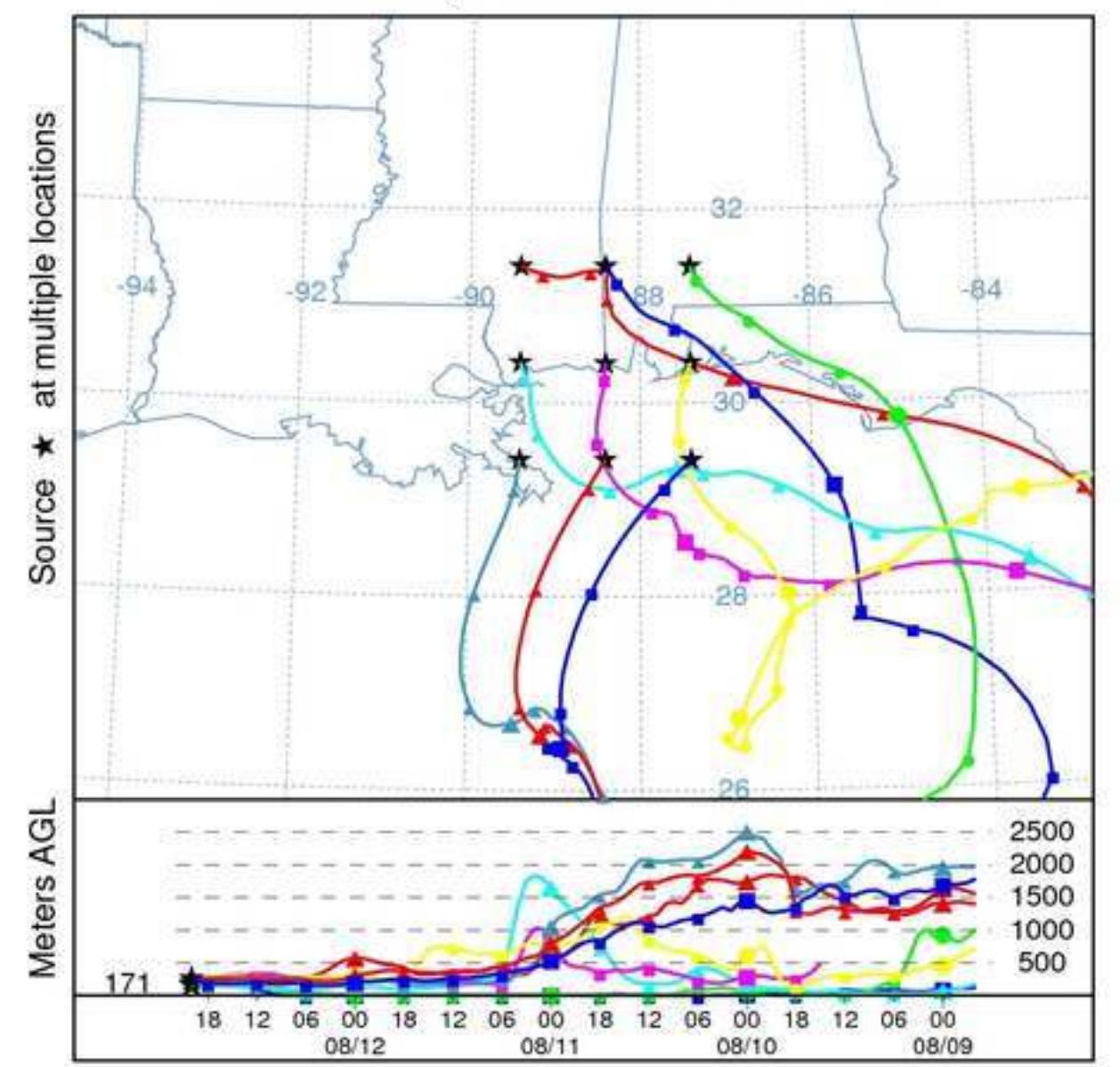
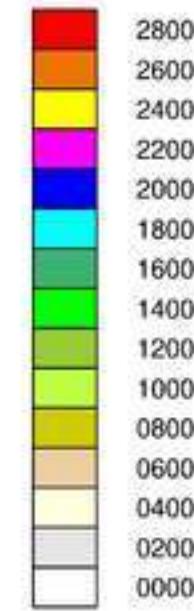
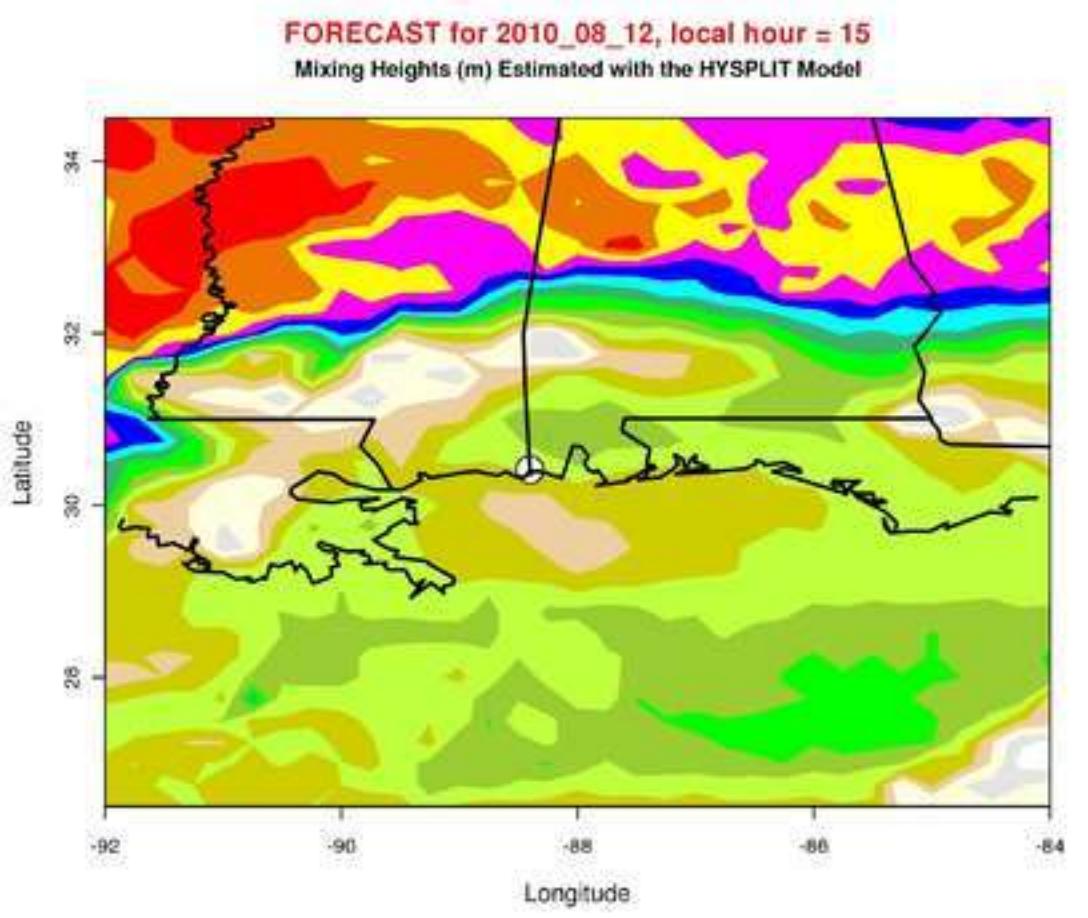
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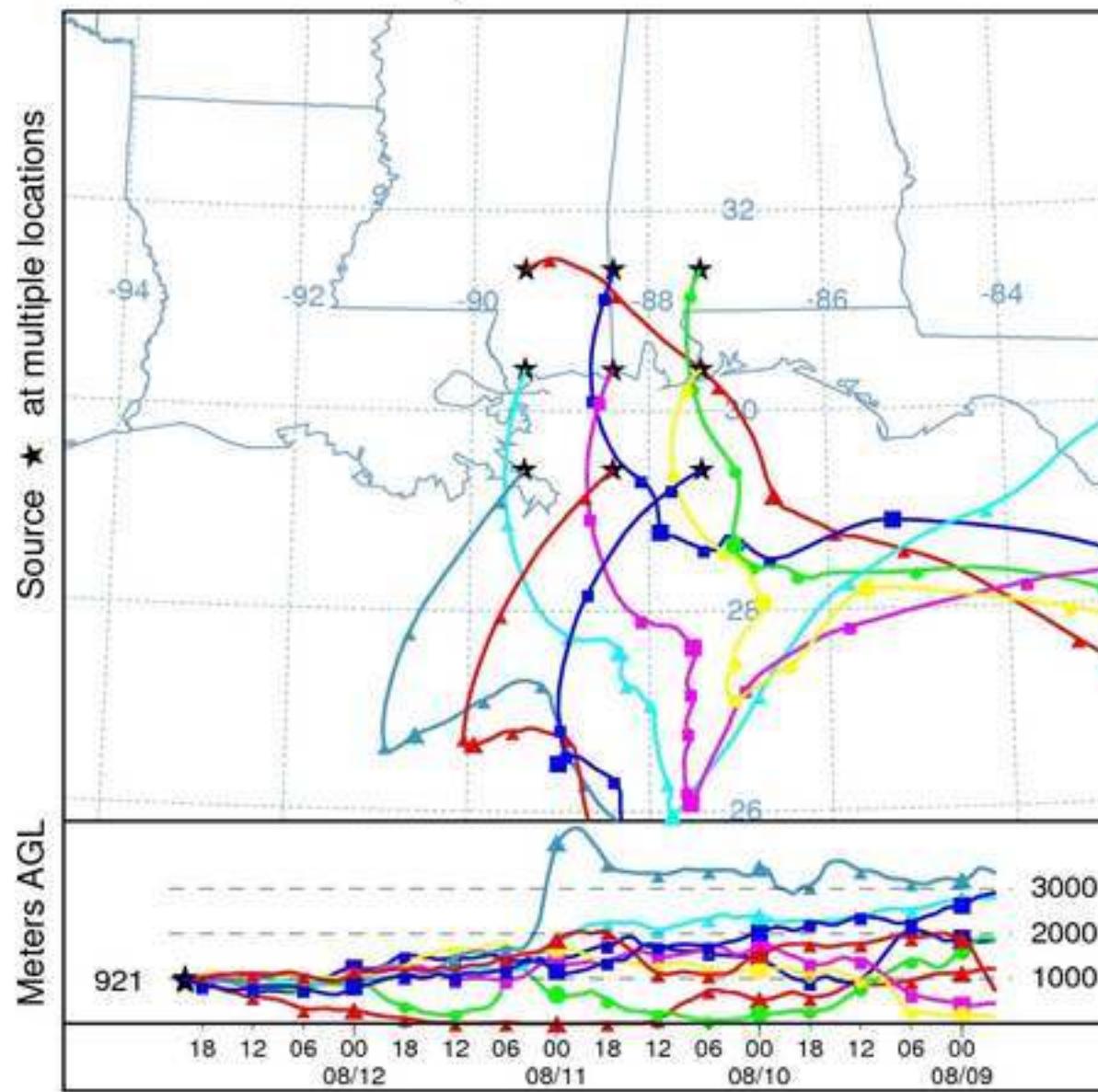
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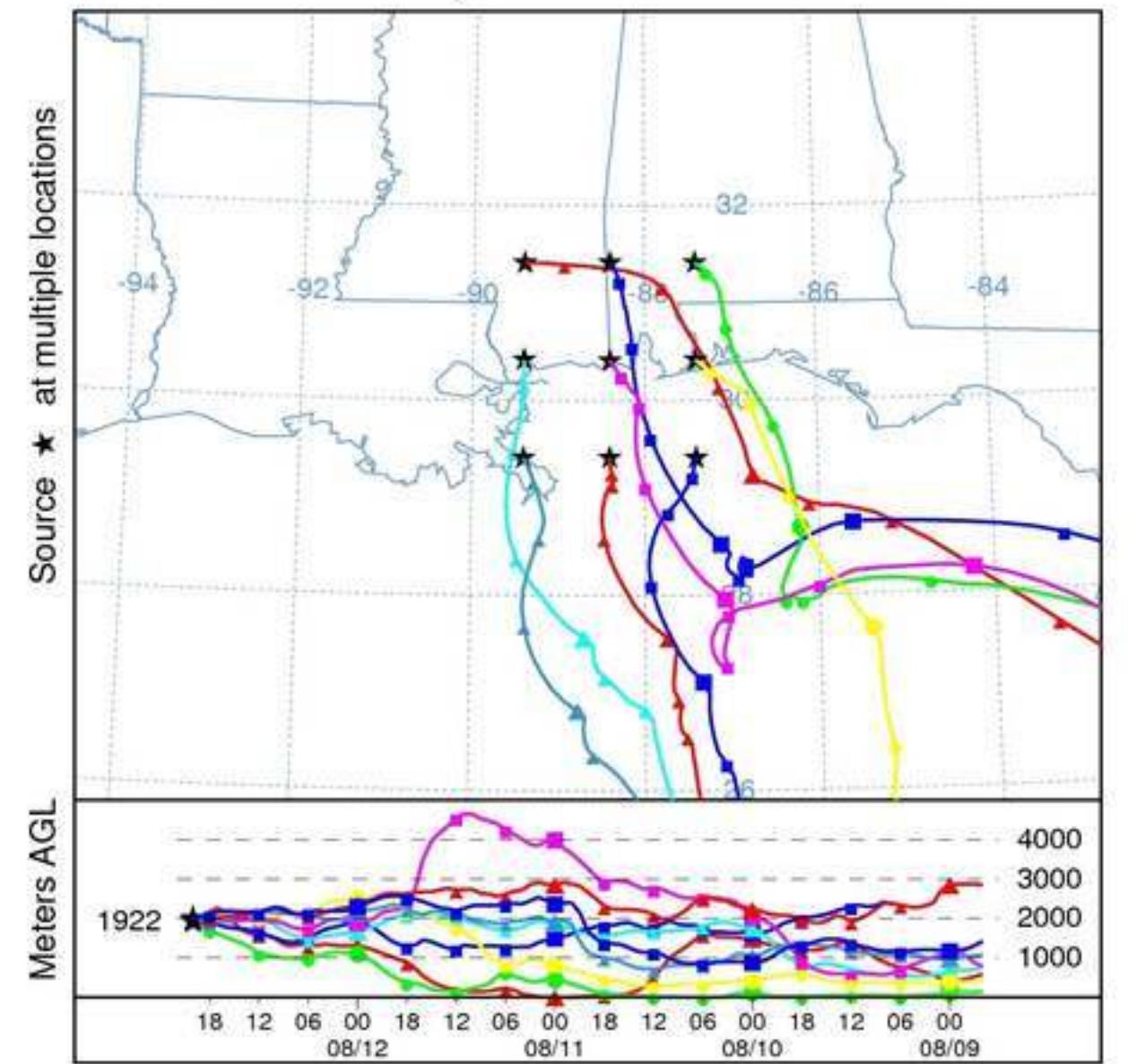
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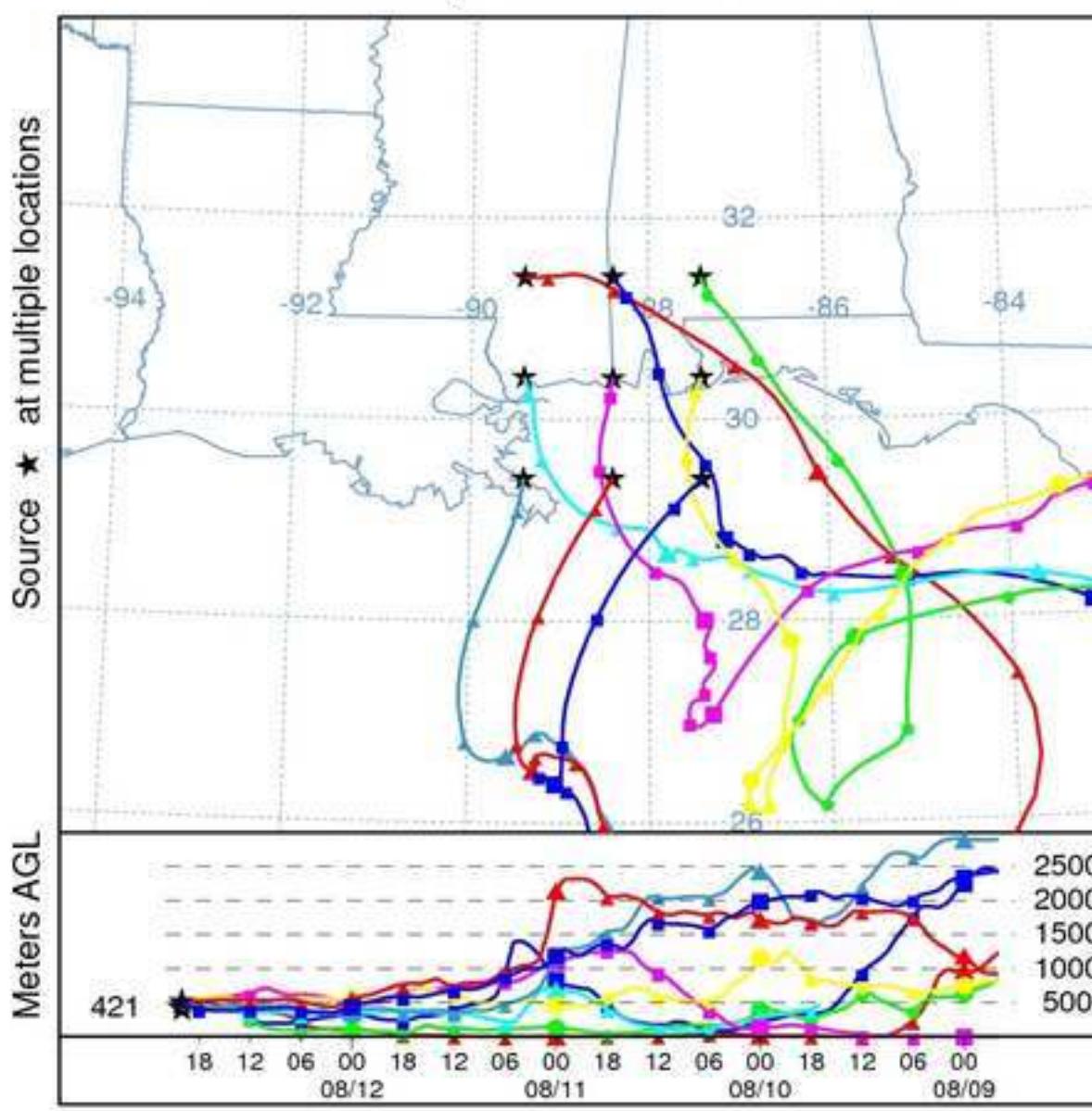
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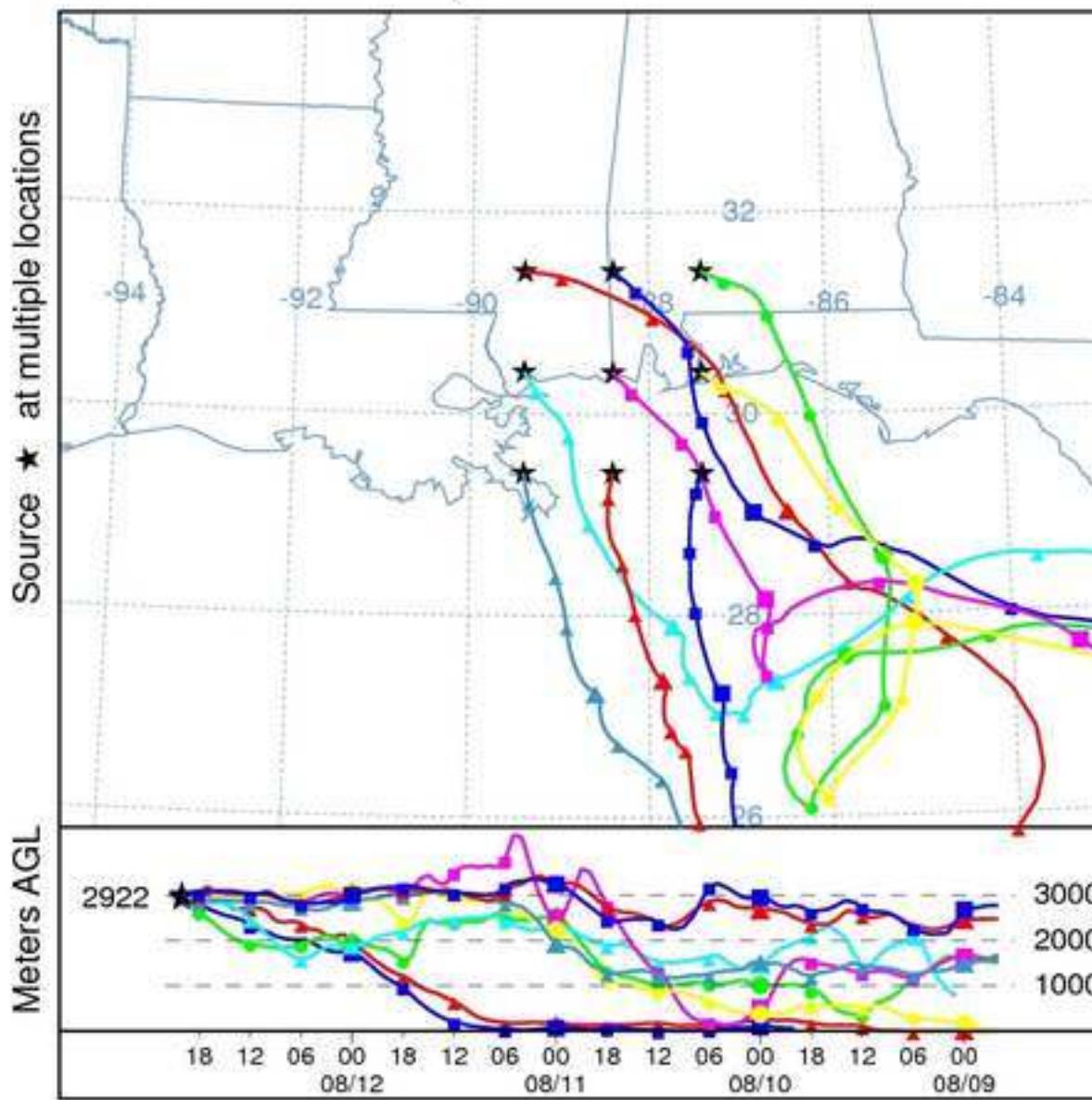
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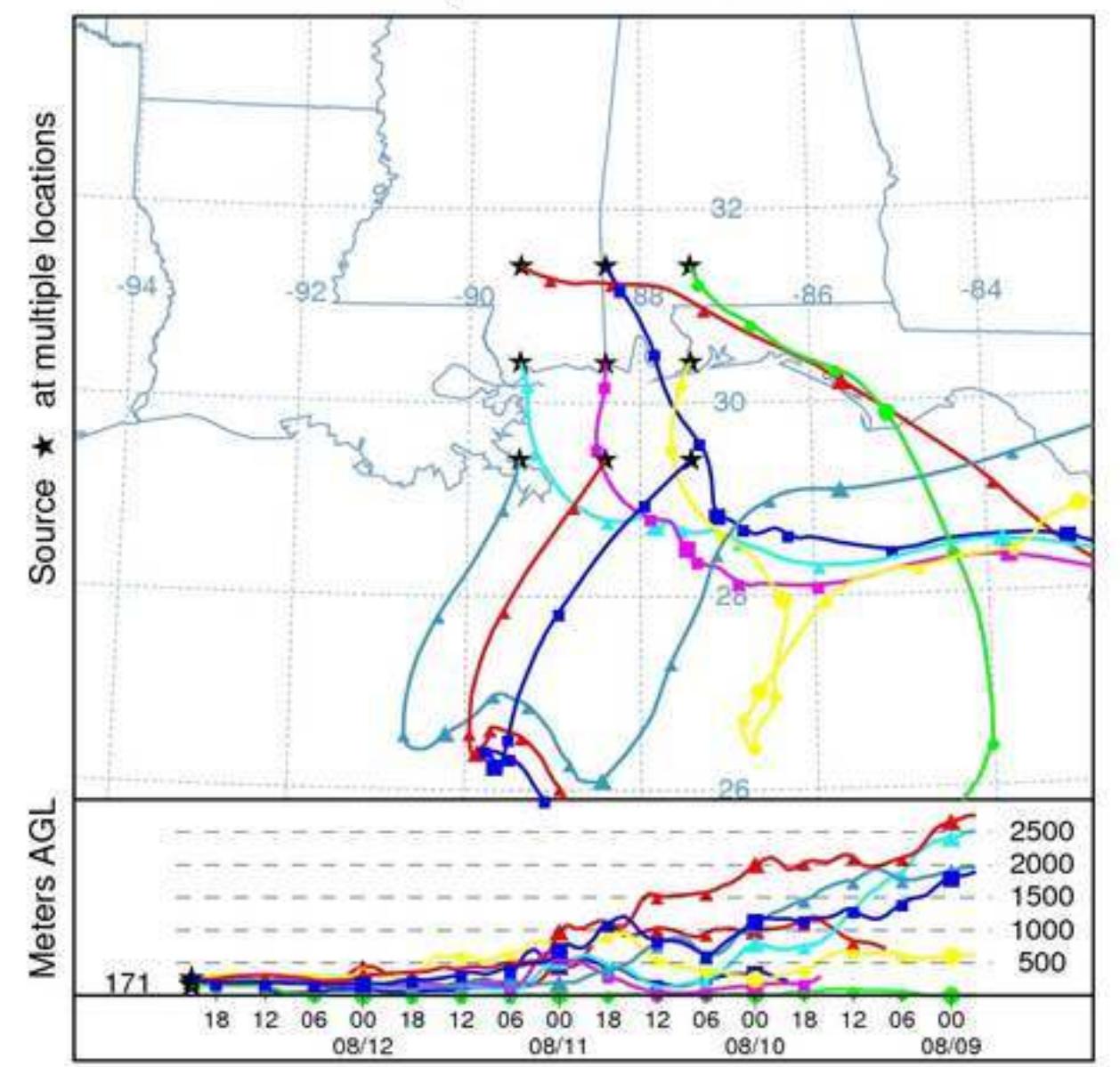
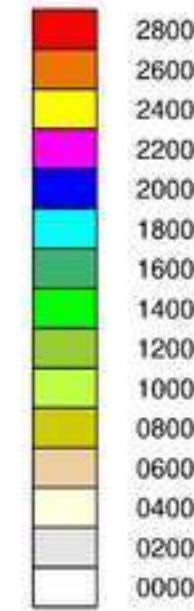
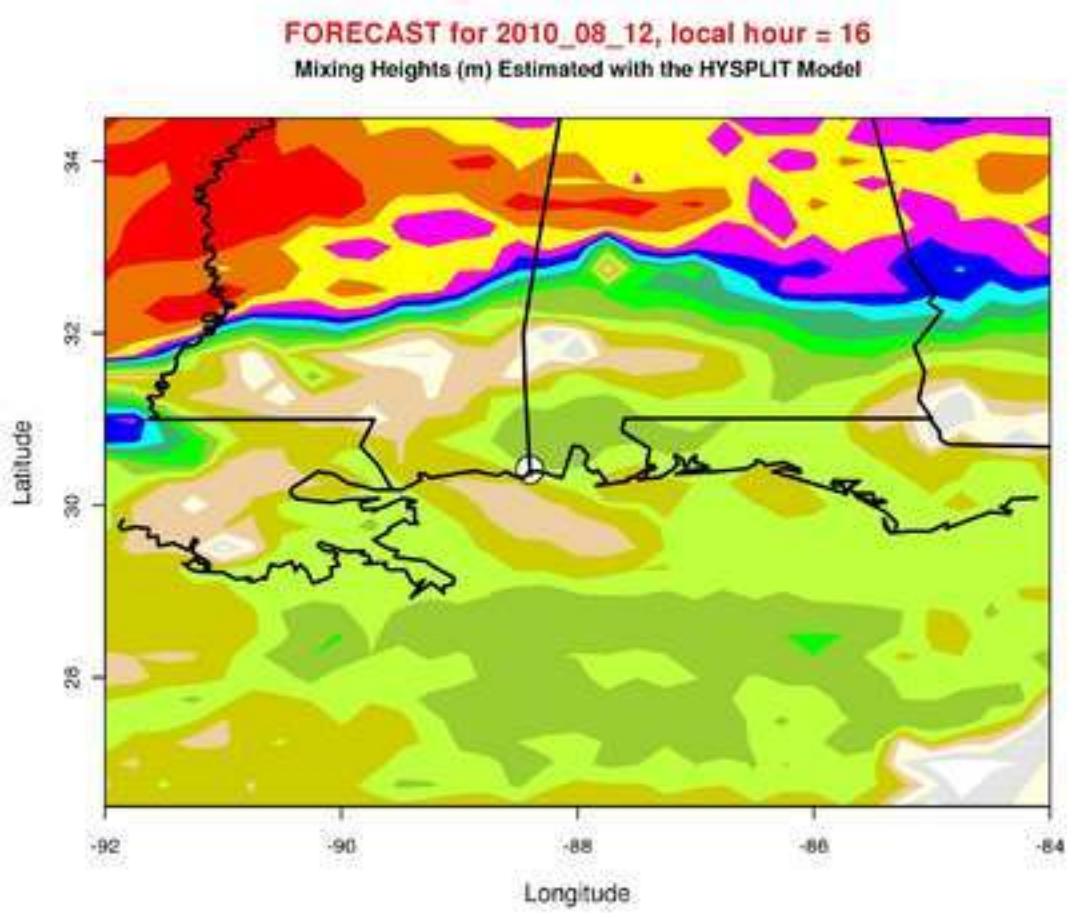
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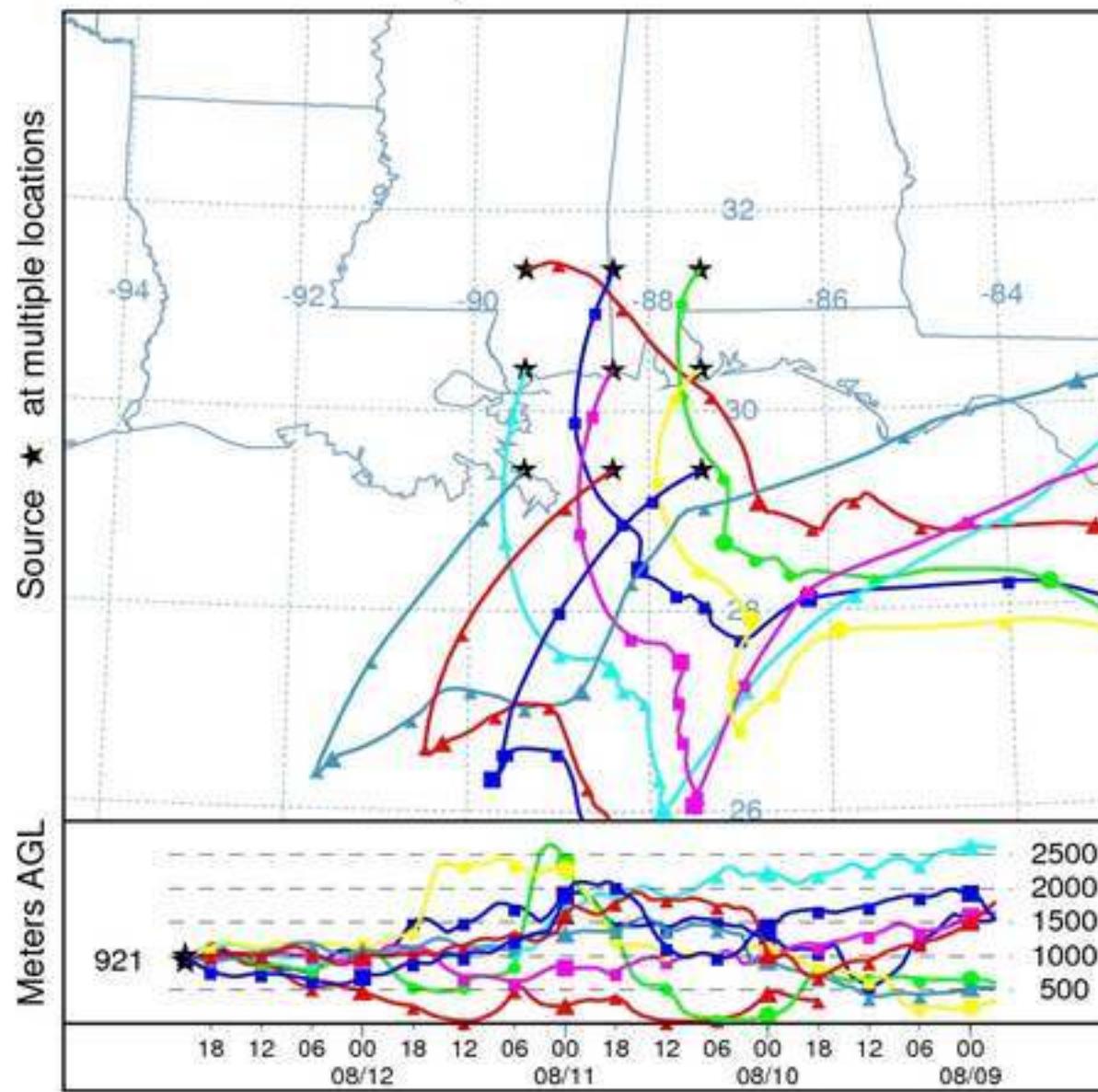
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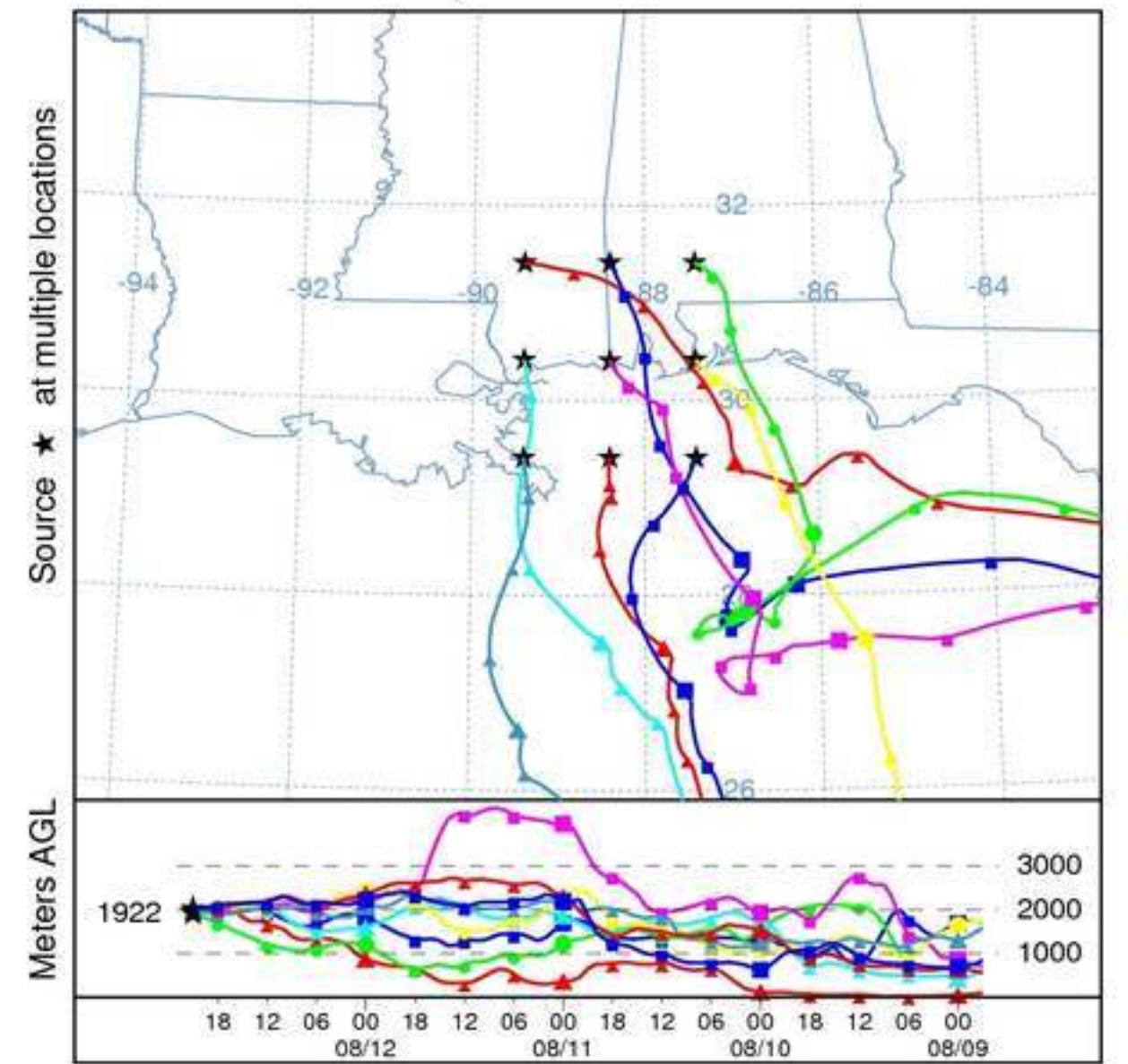
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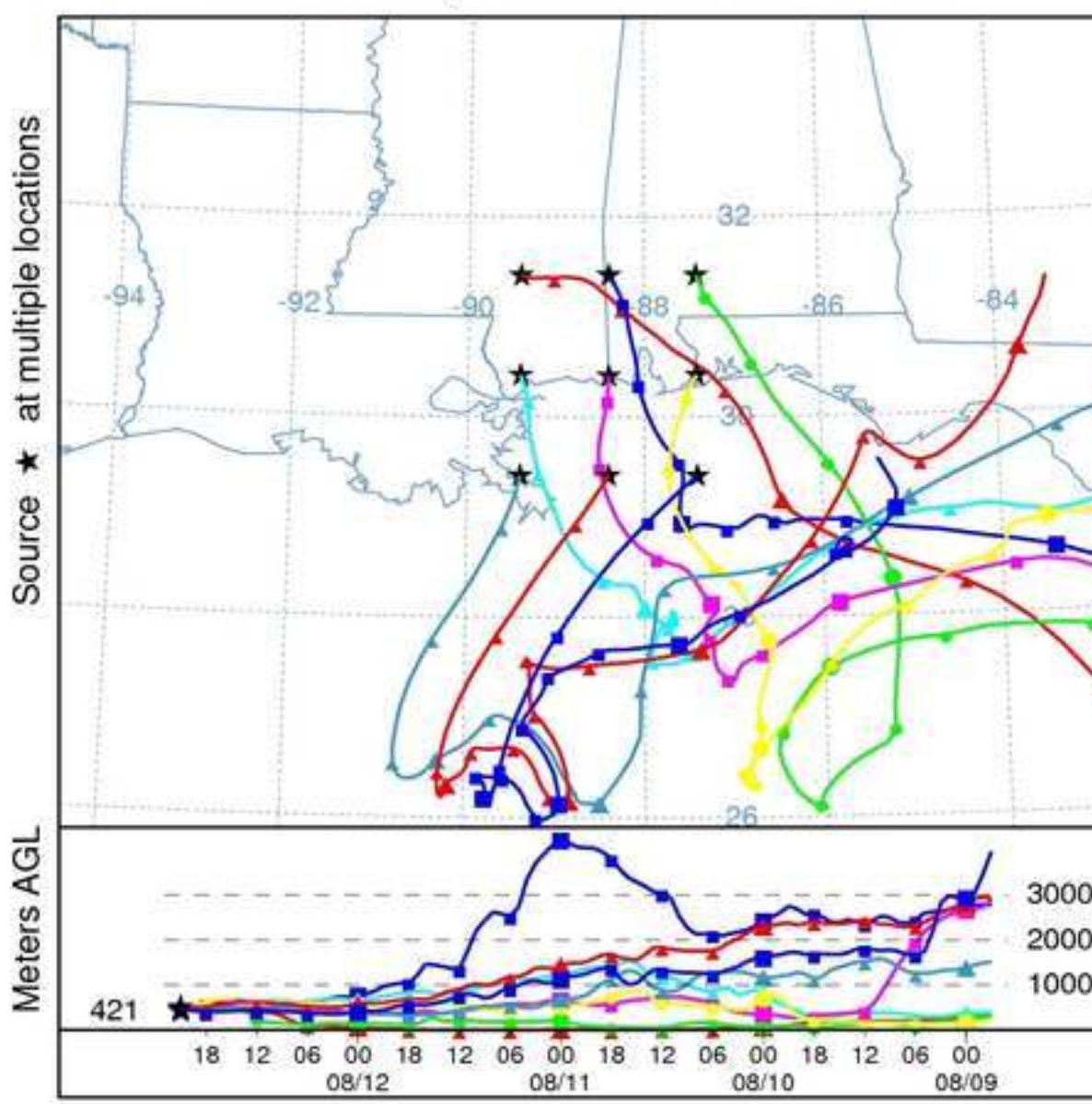
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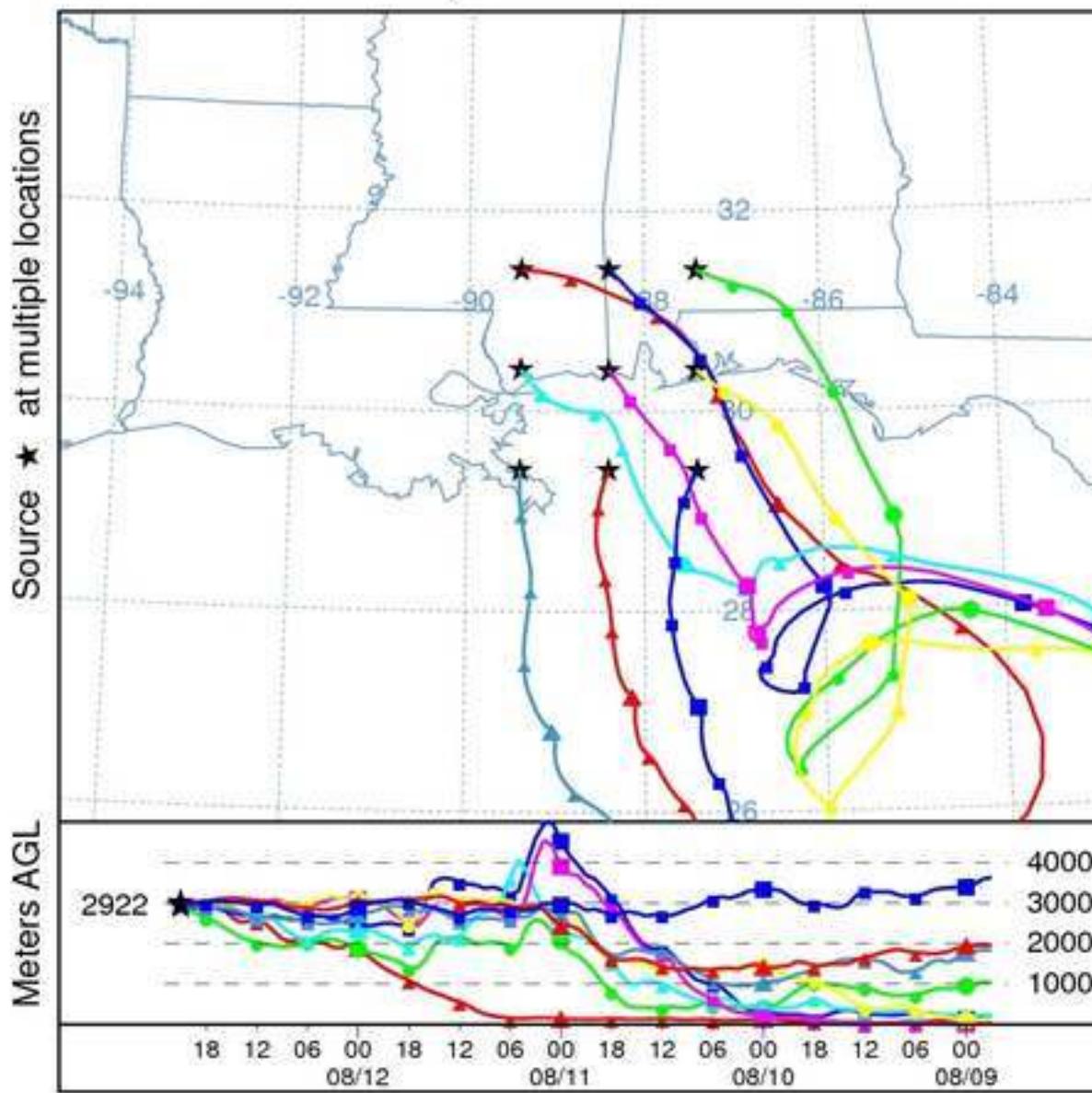
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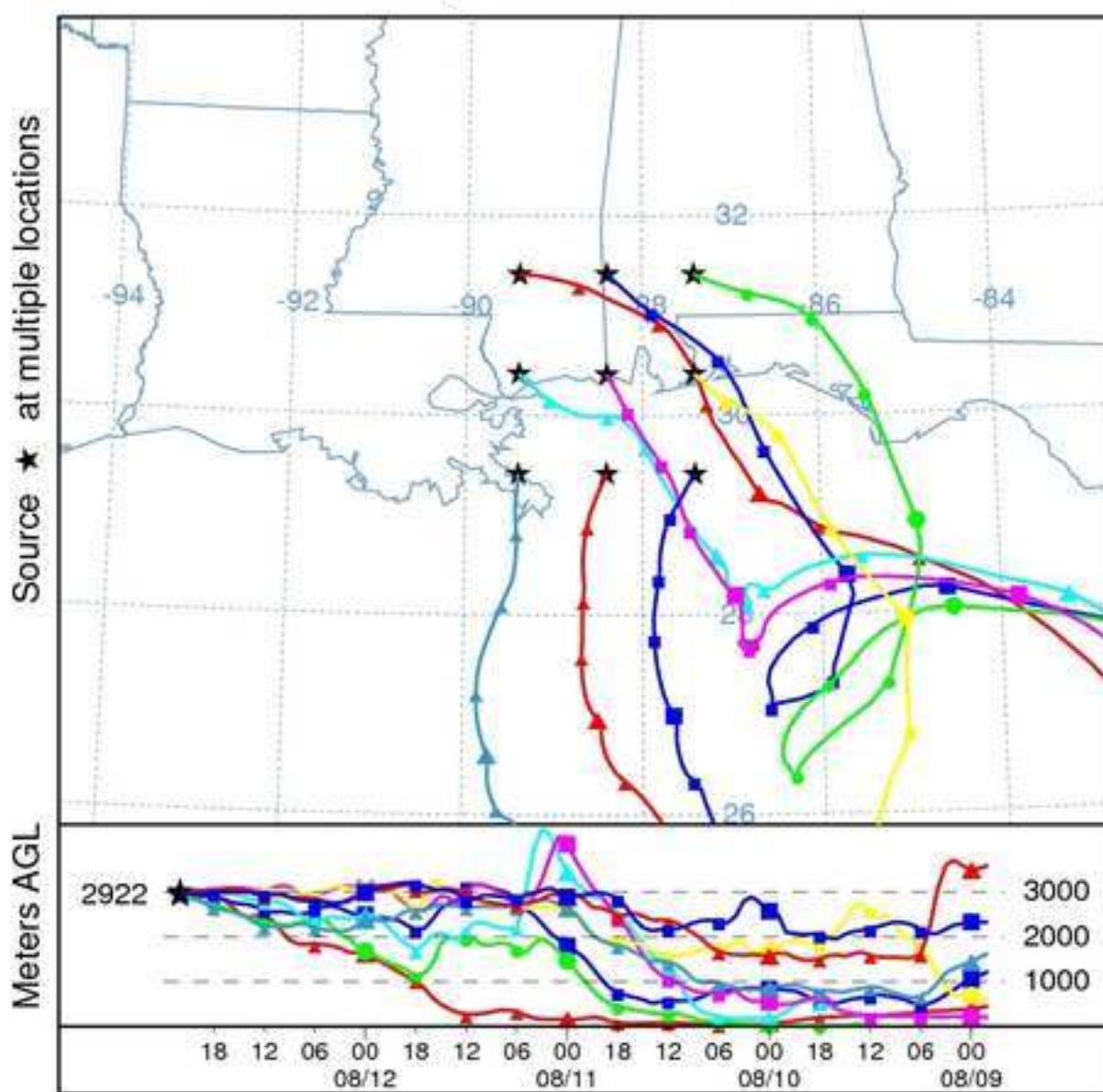
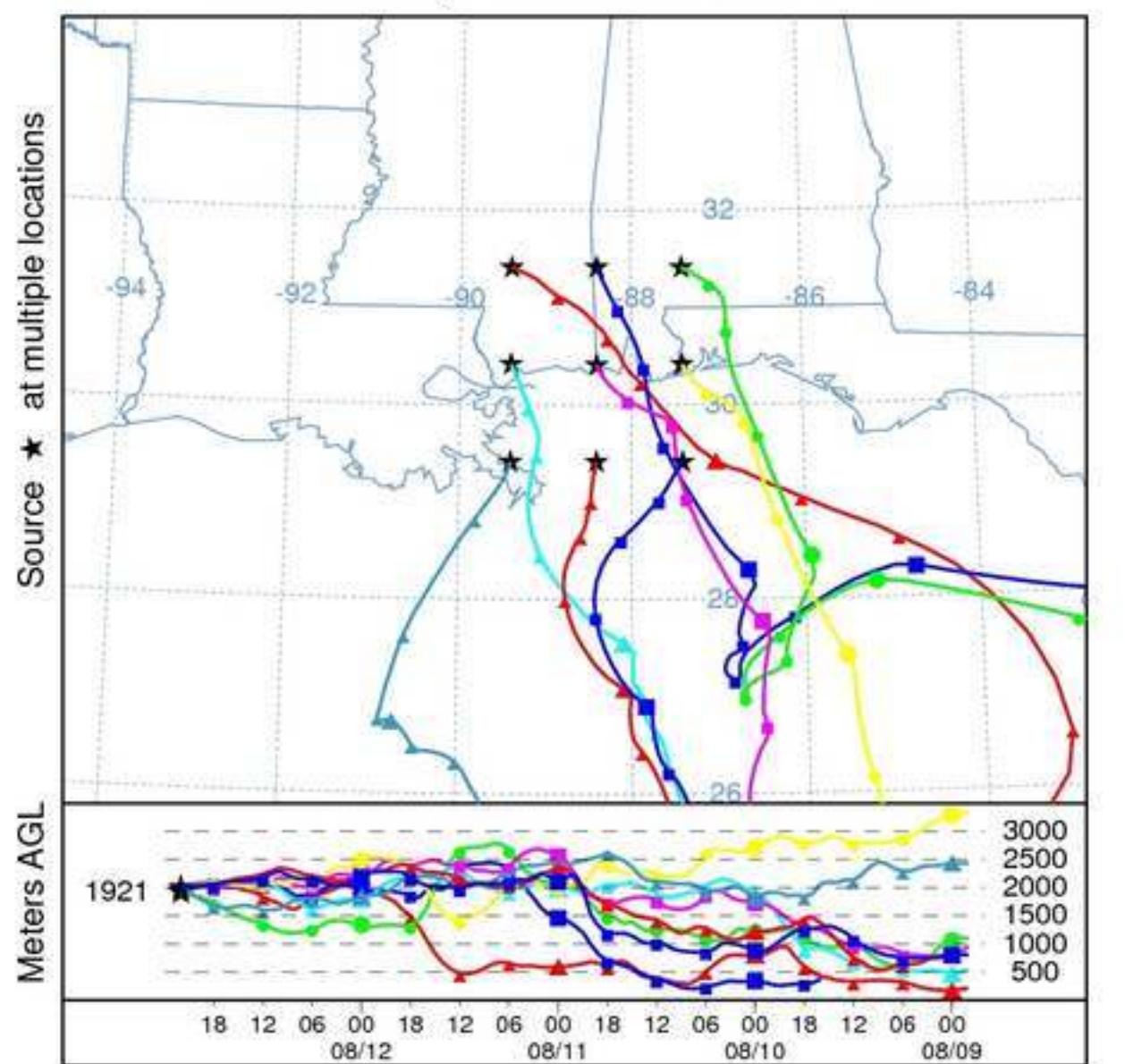
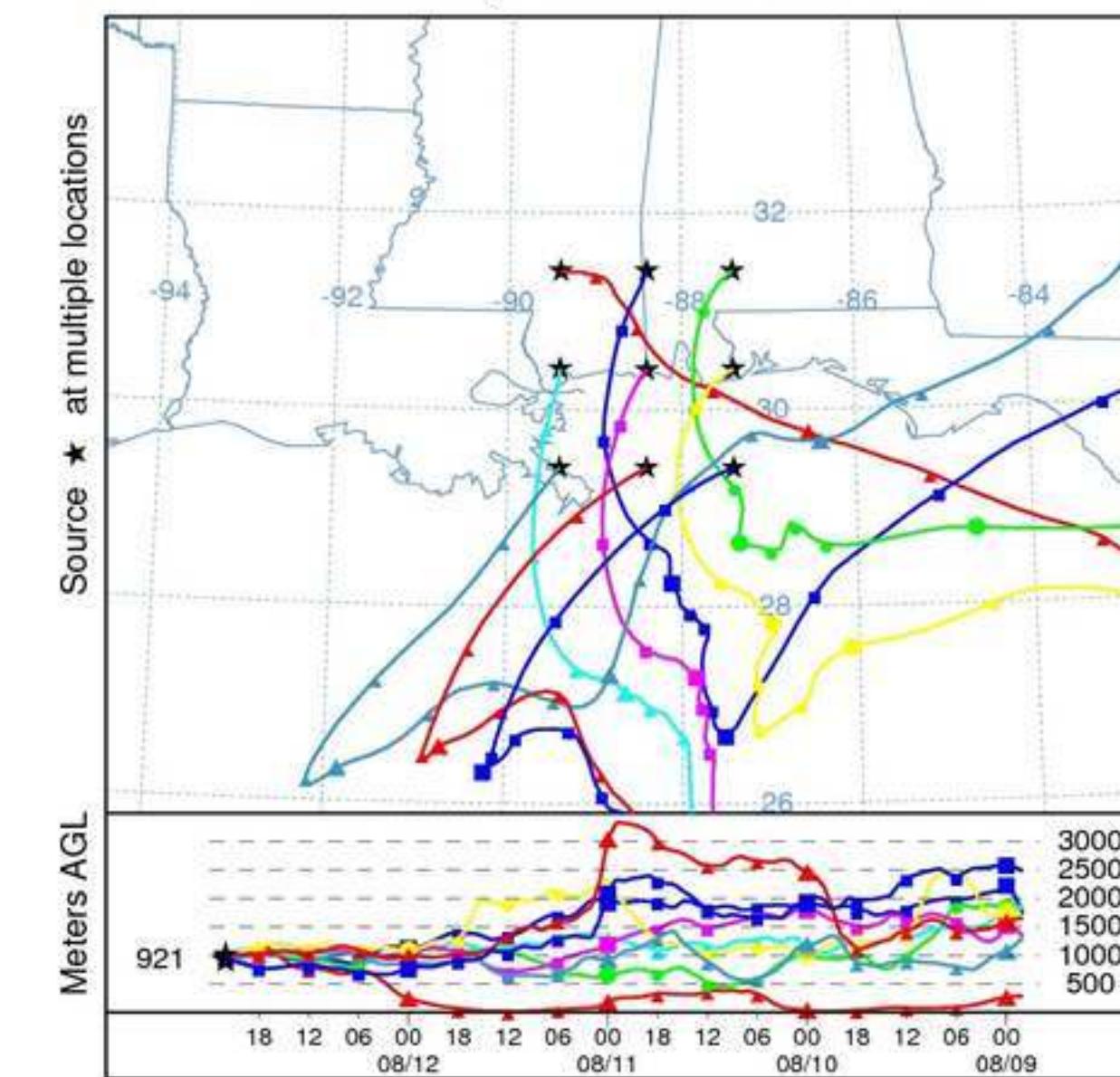
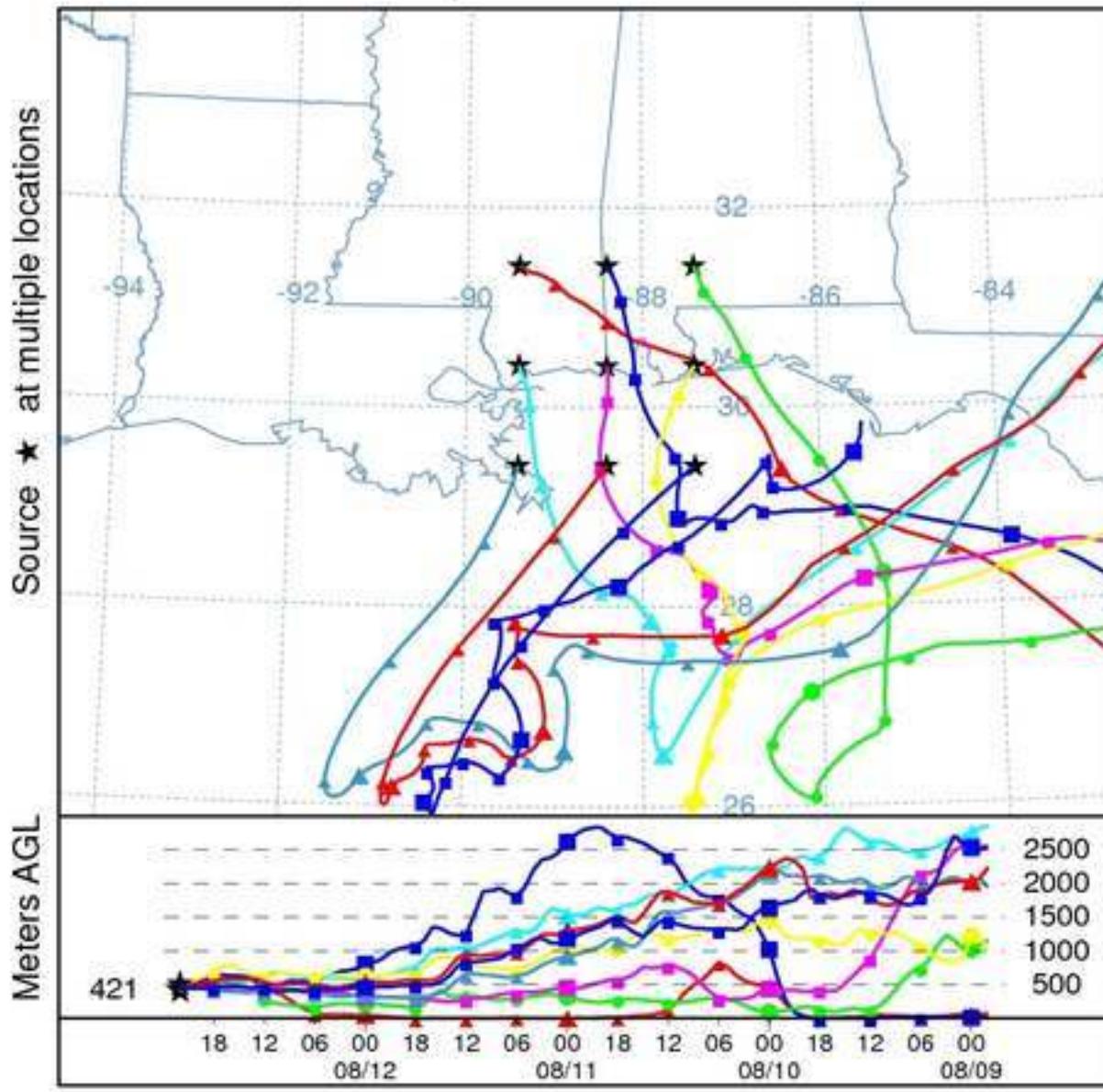
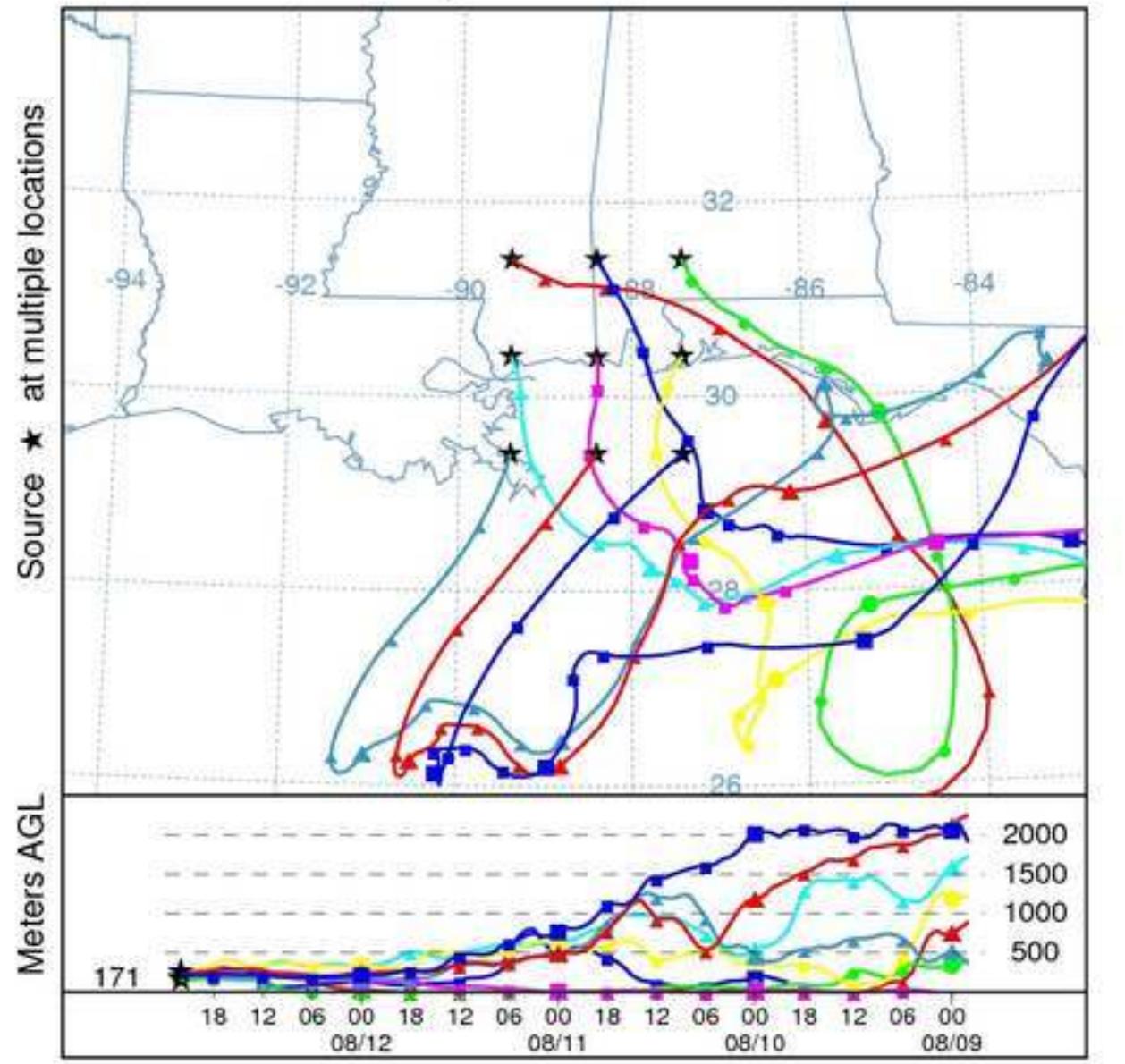
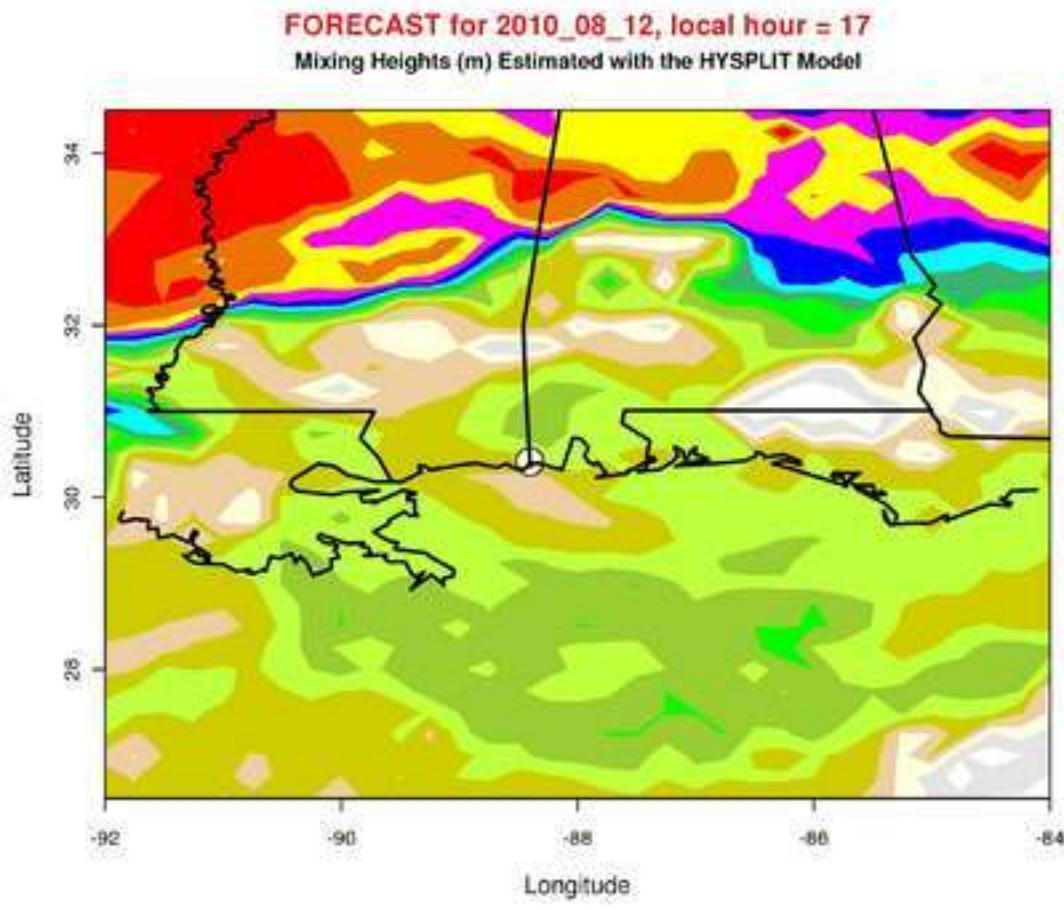


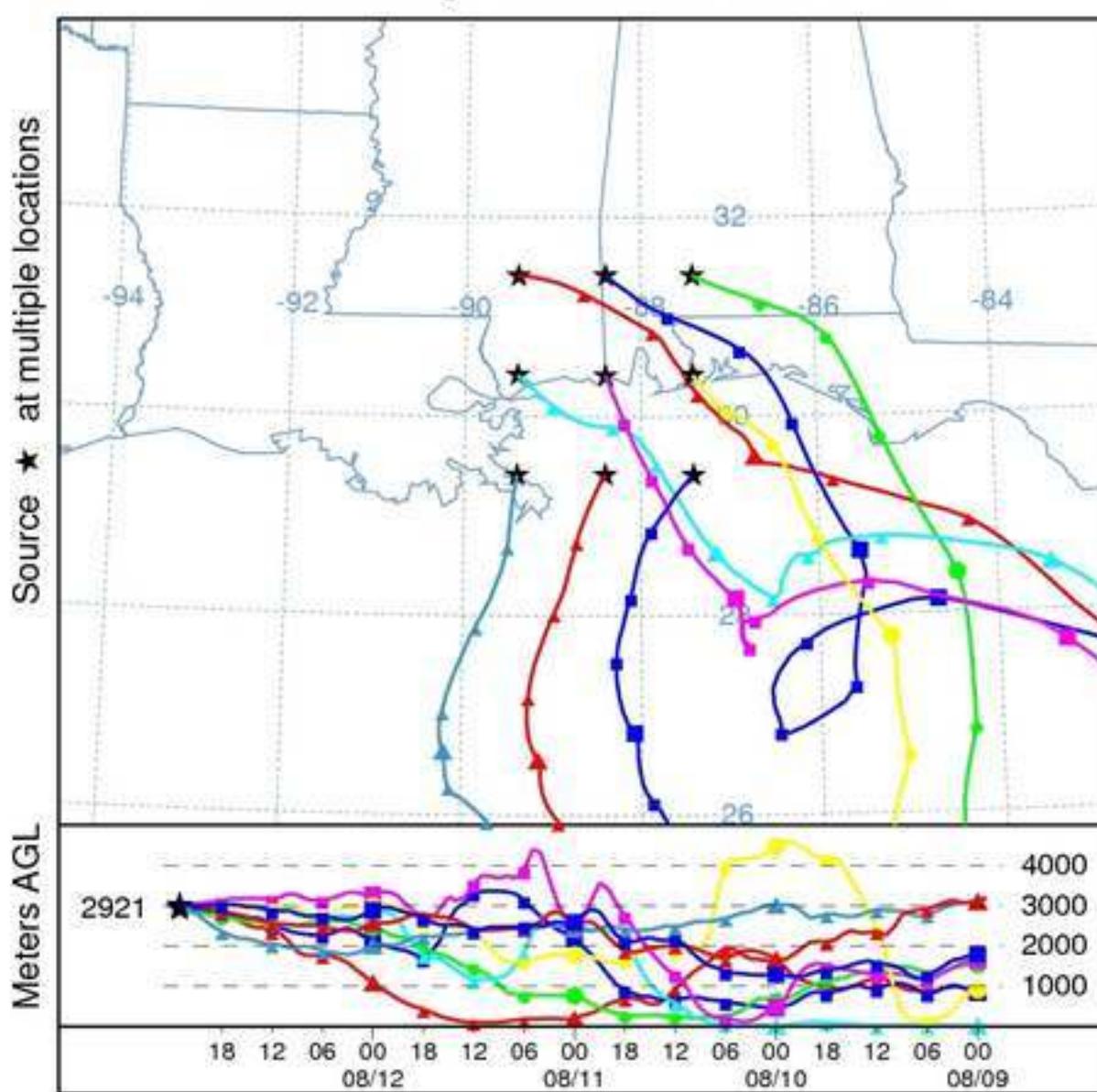
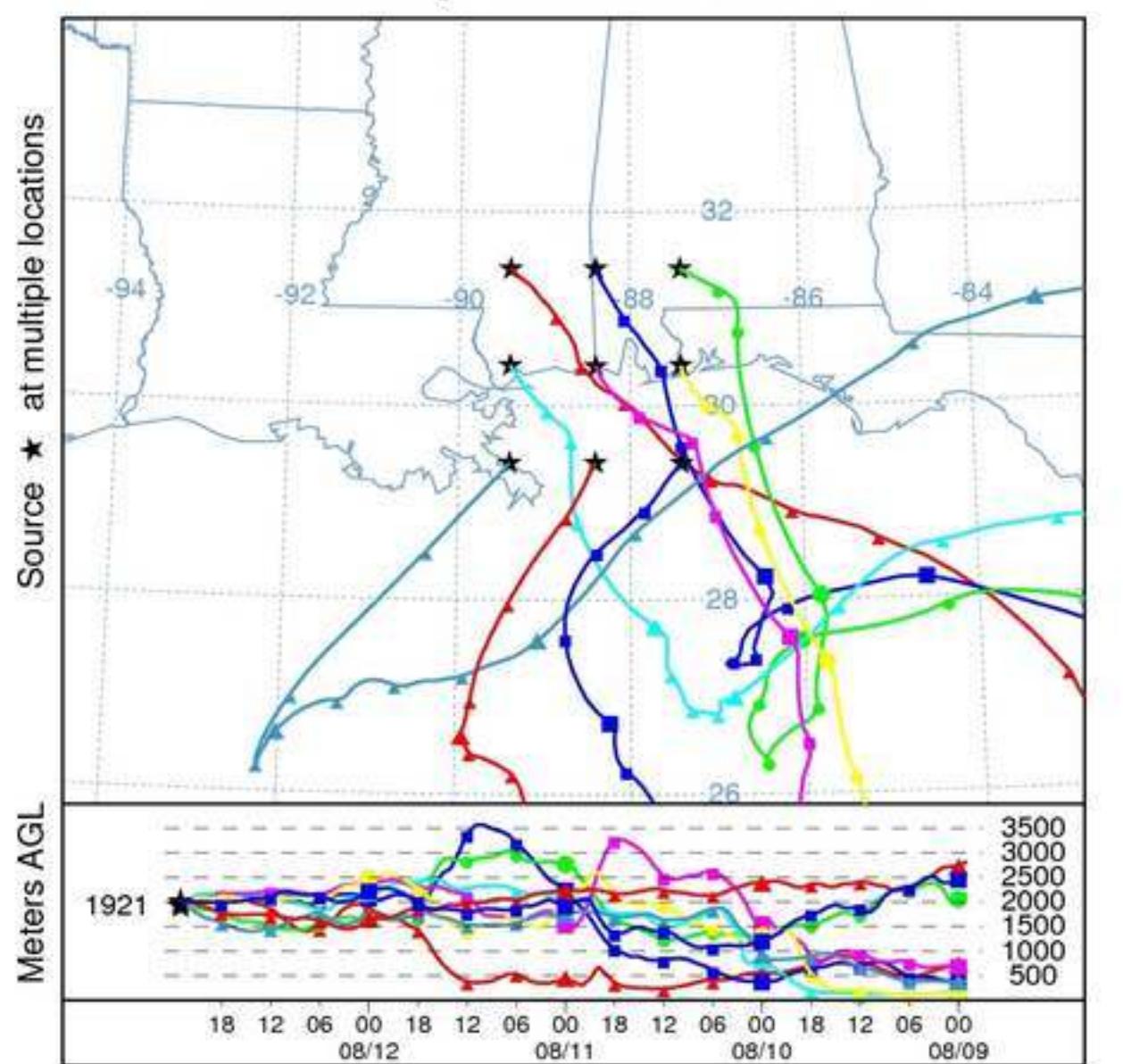
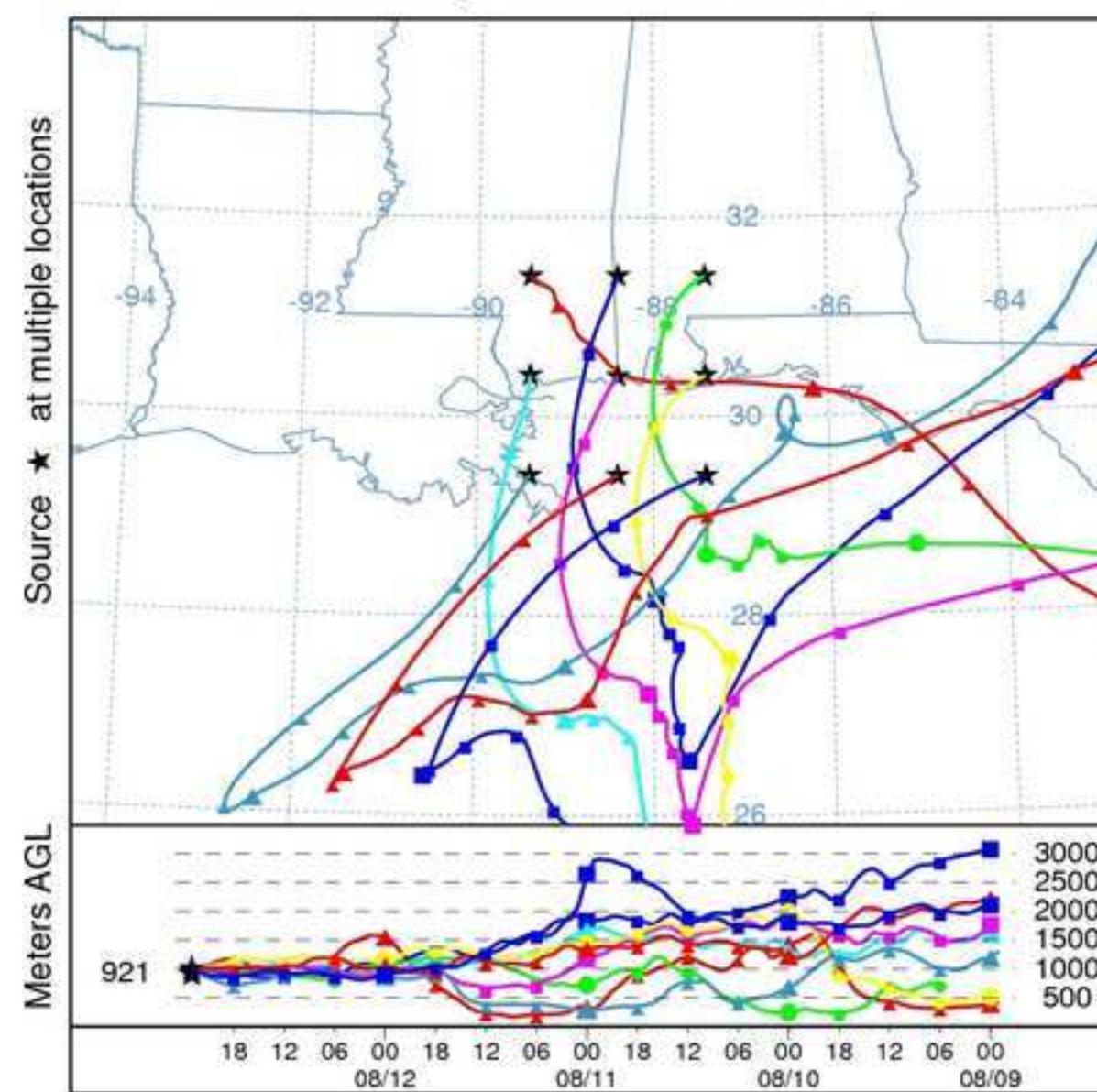
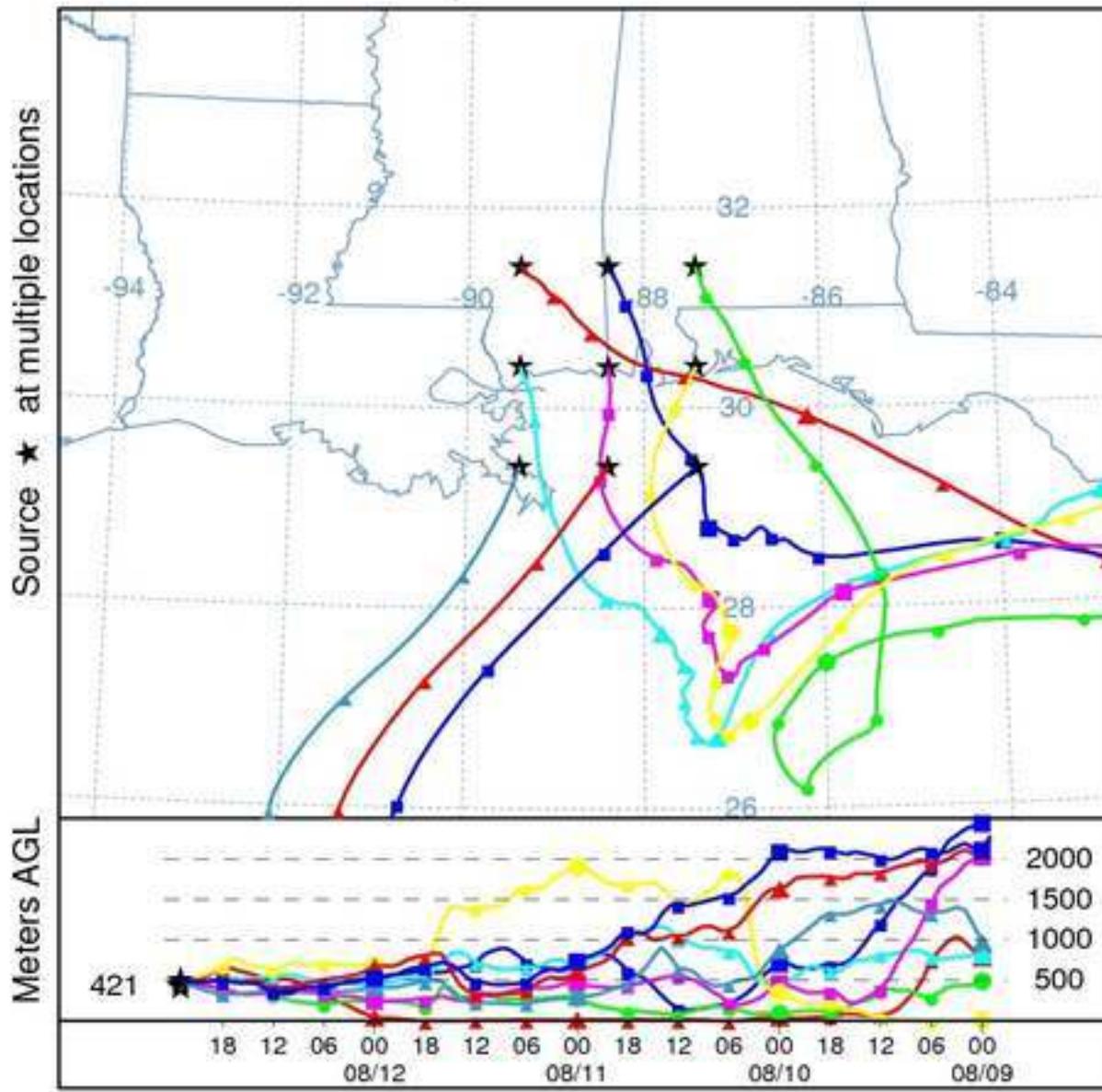
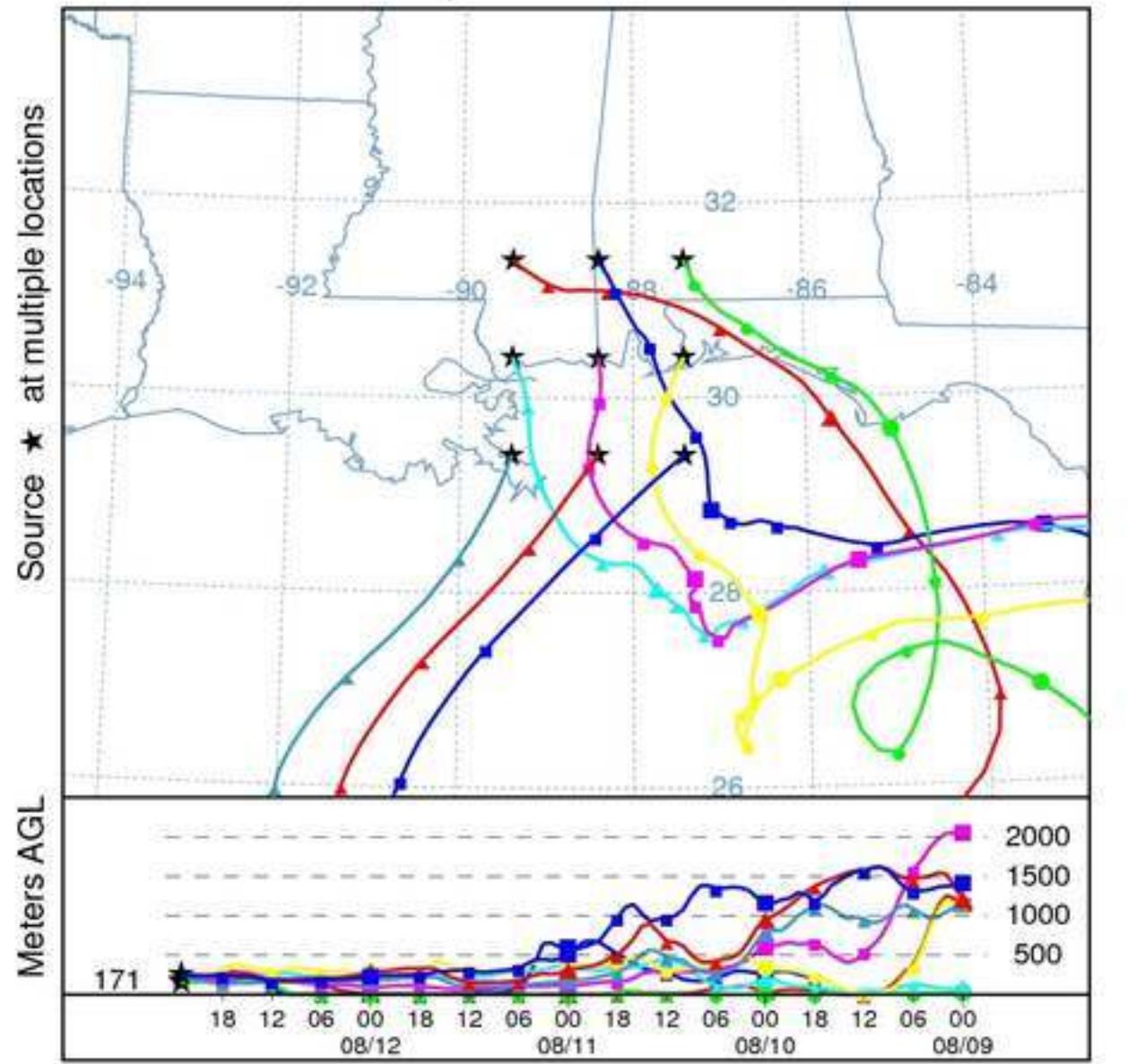
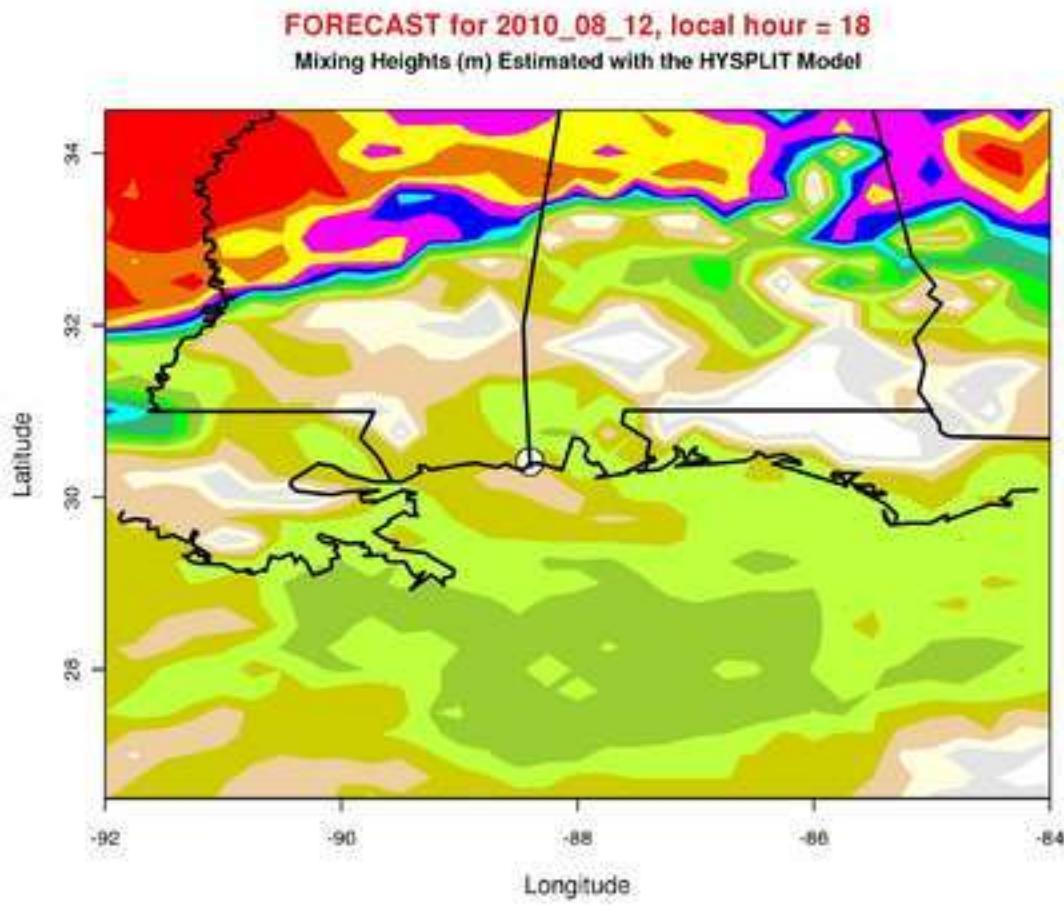
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00 UTC 12 Aug NAMS Forecast Initialization

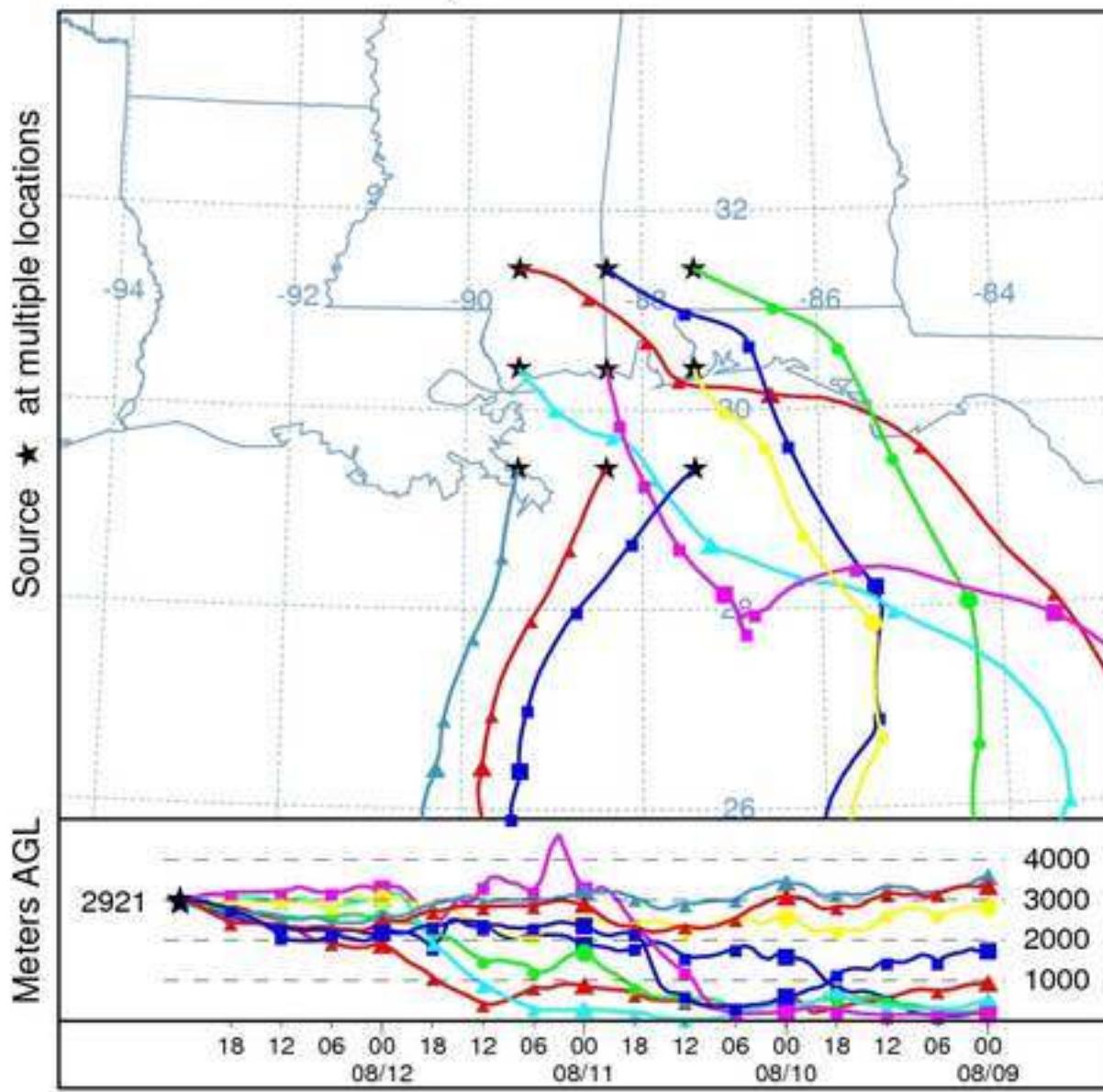
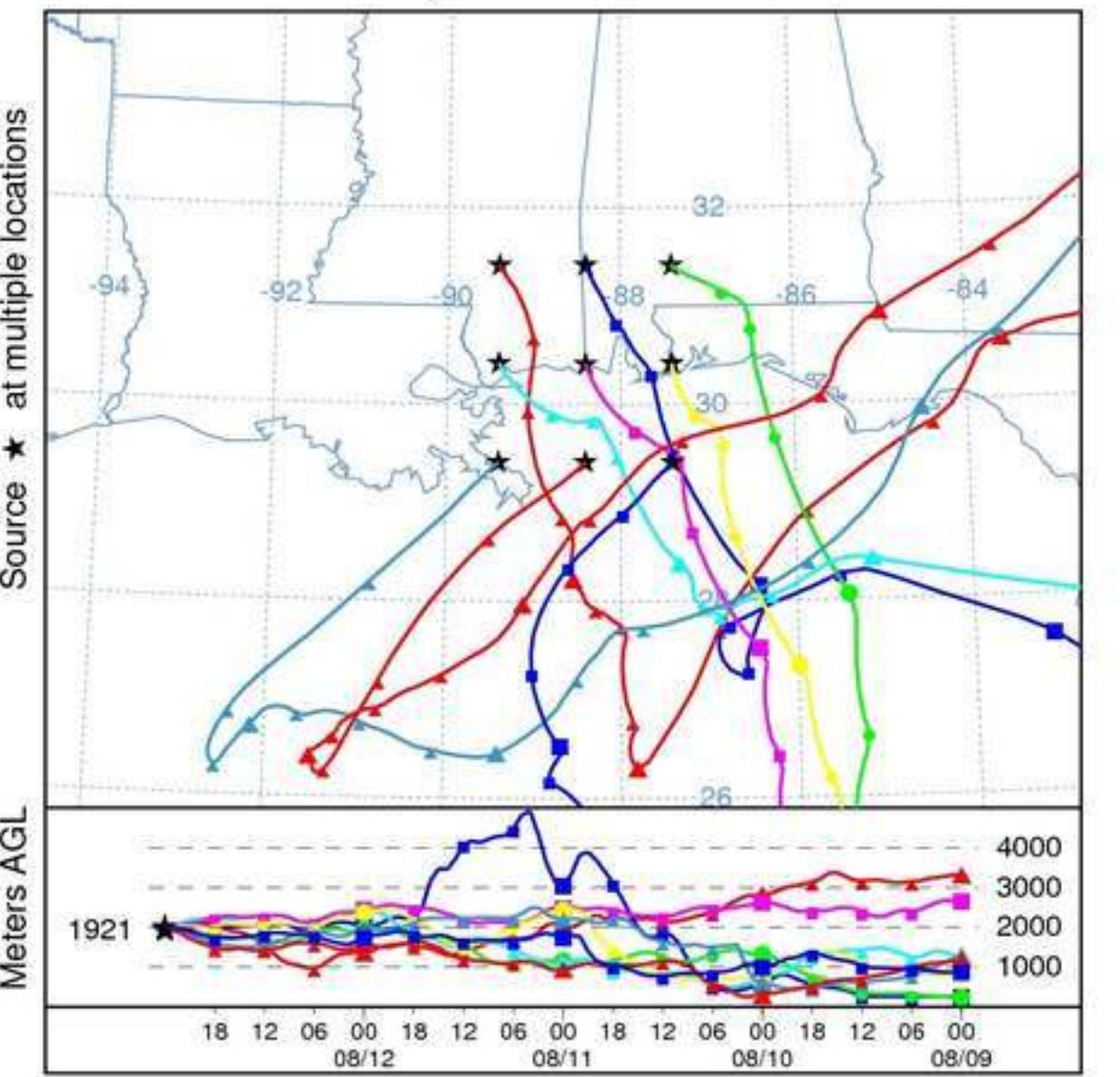
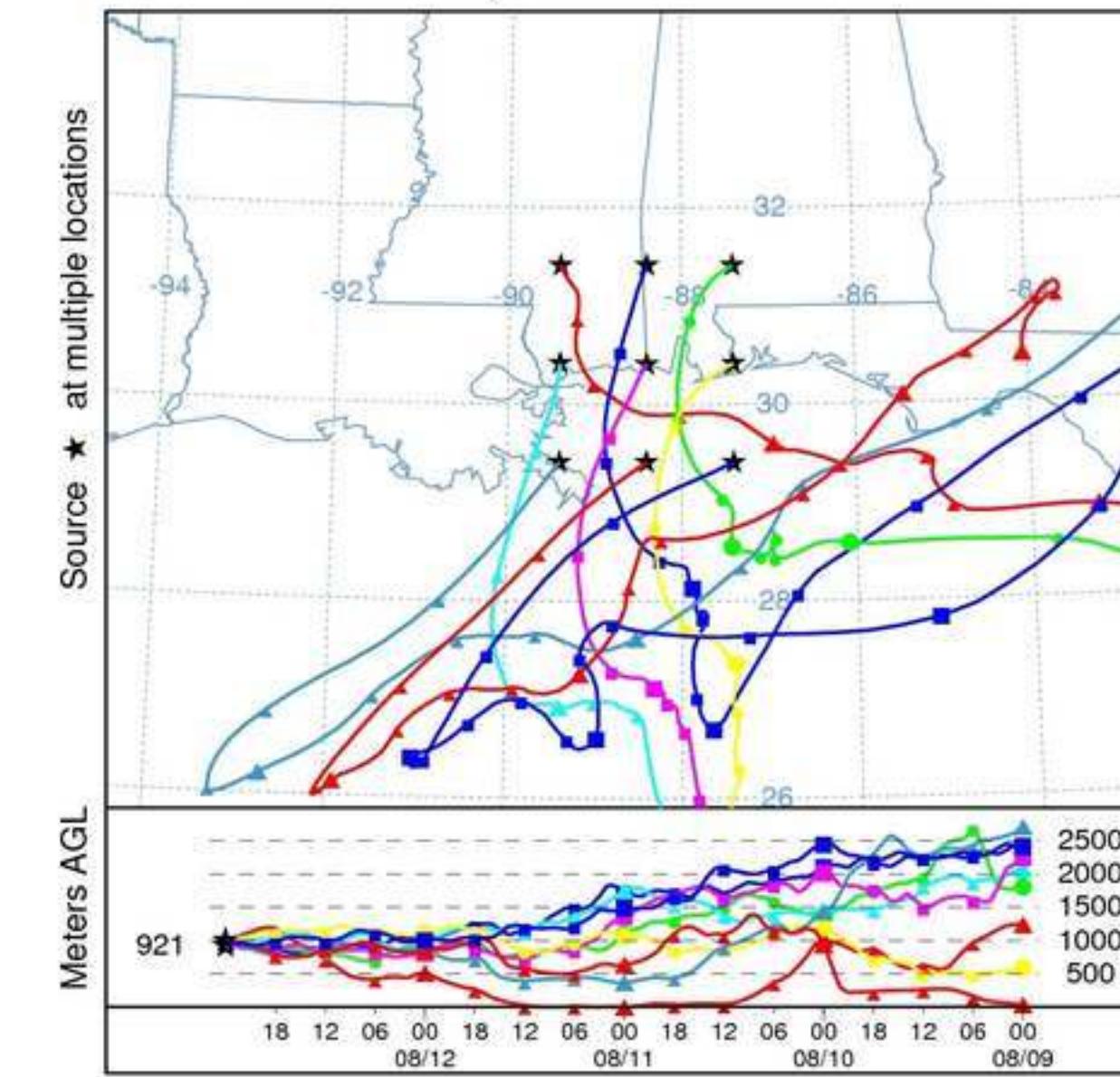
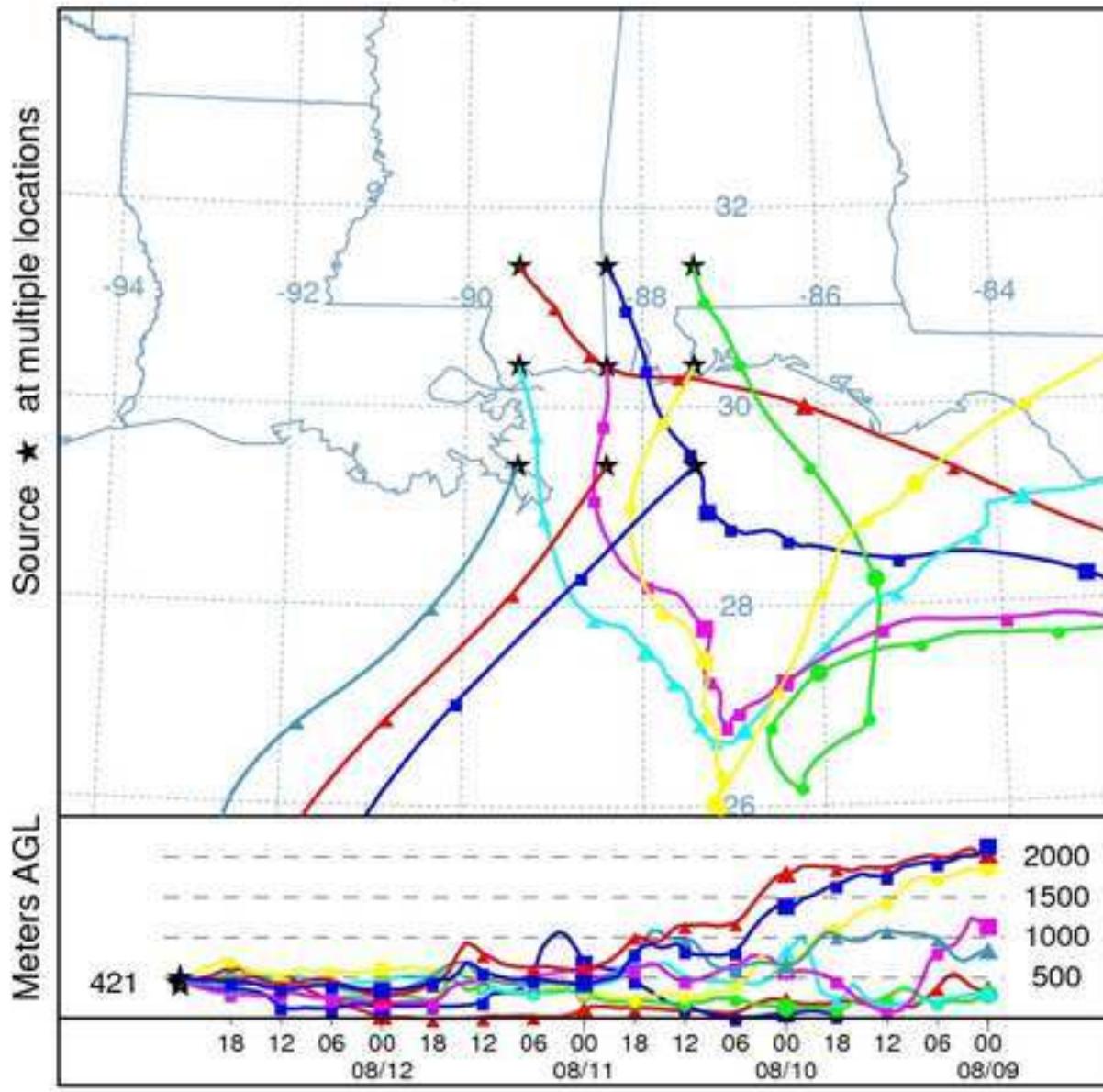
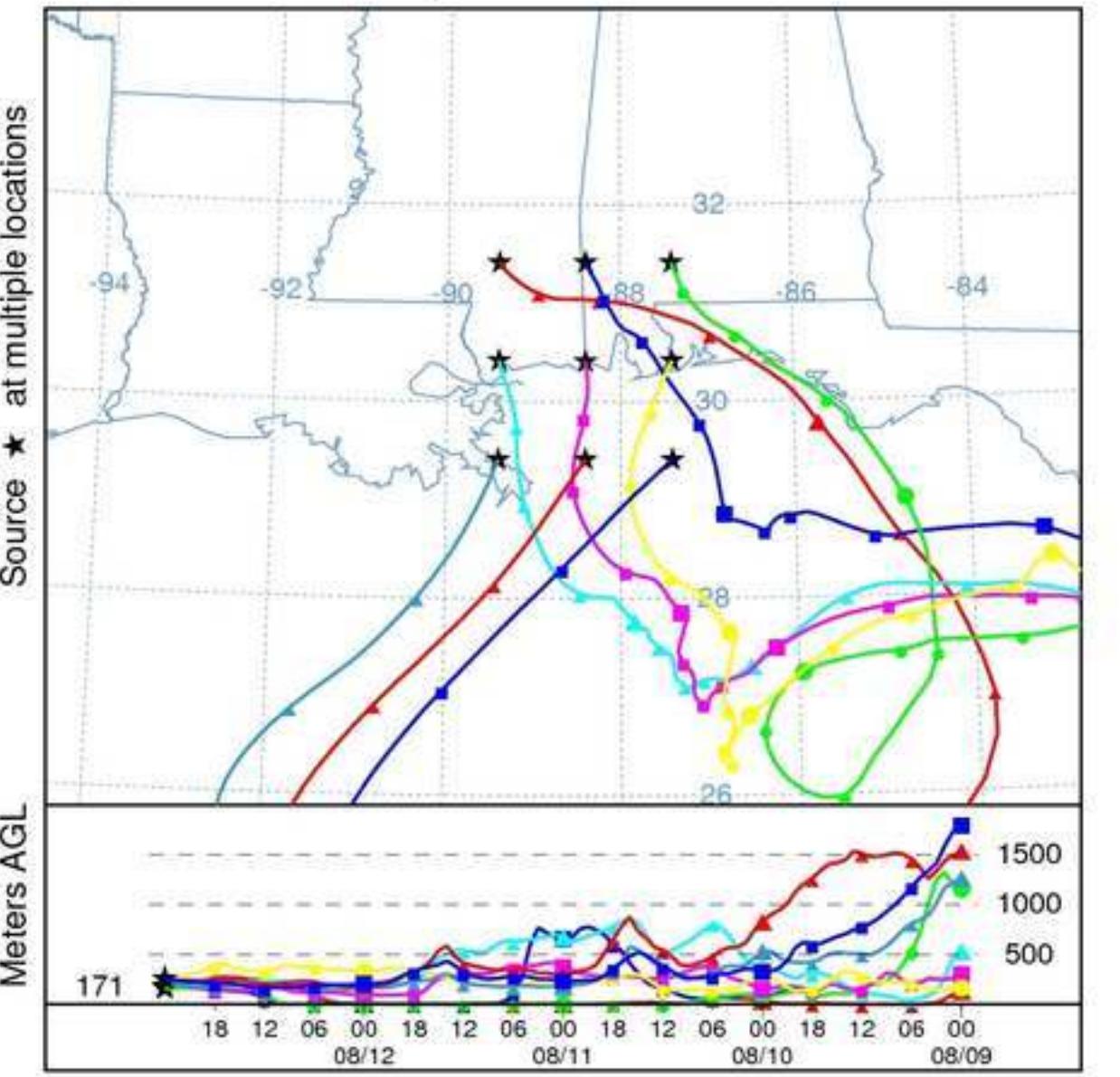
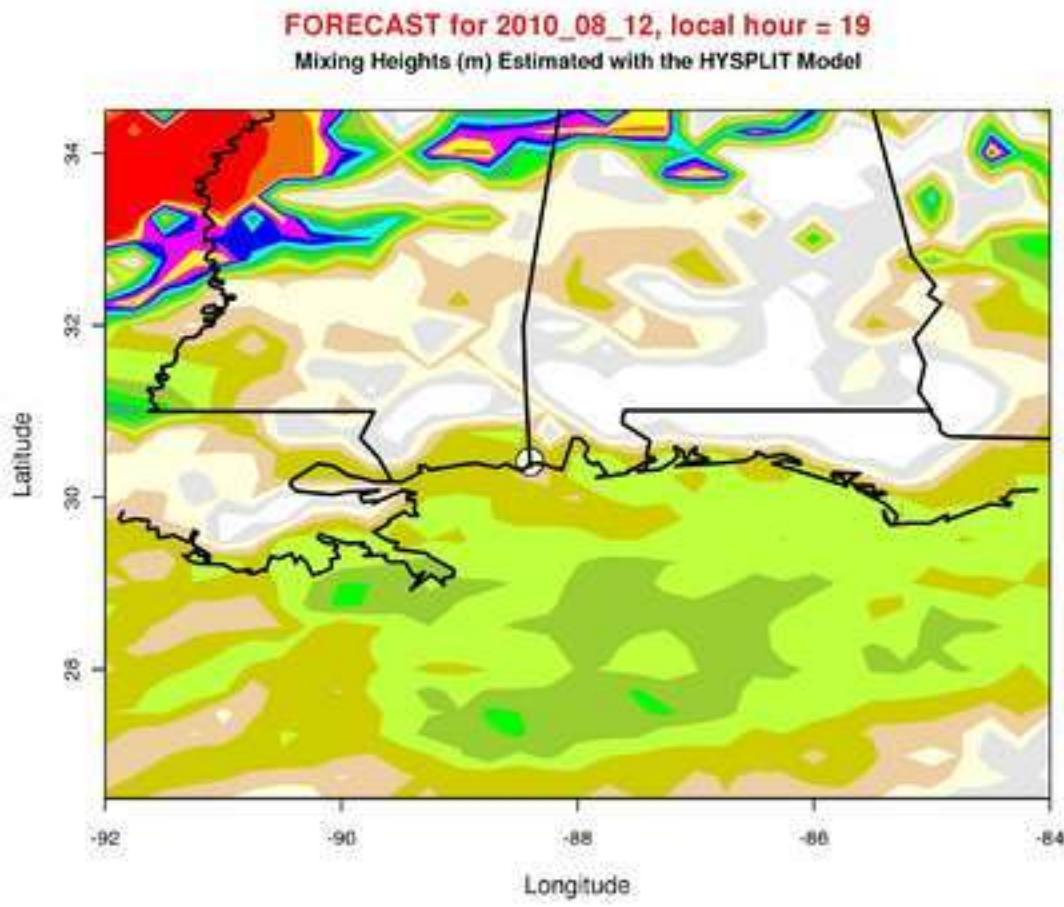


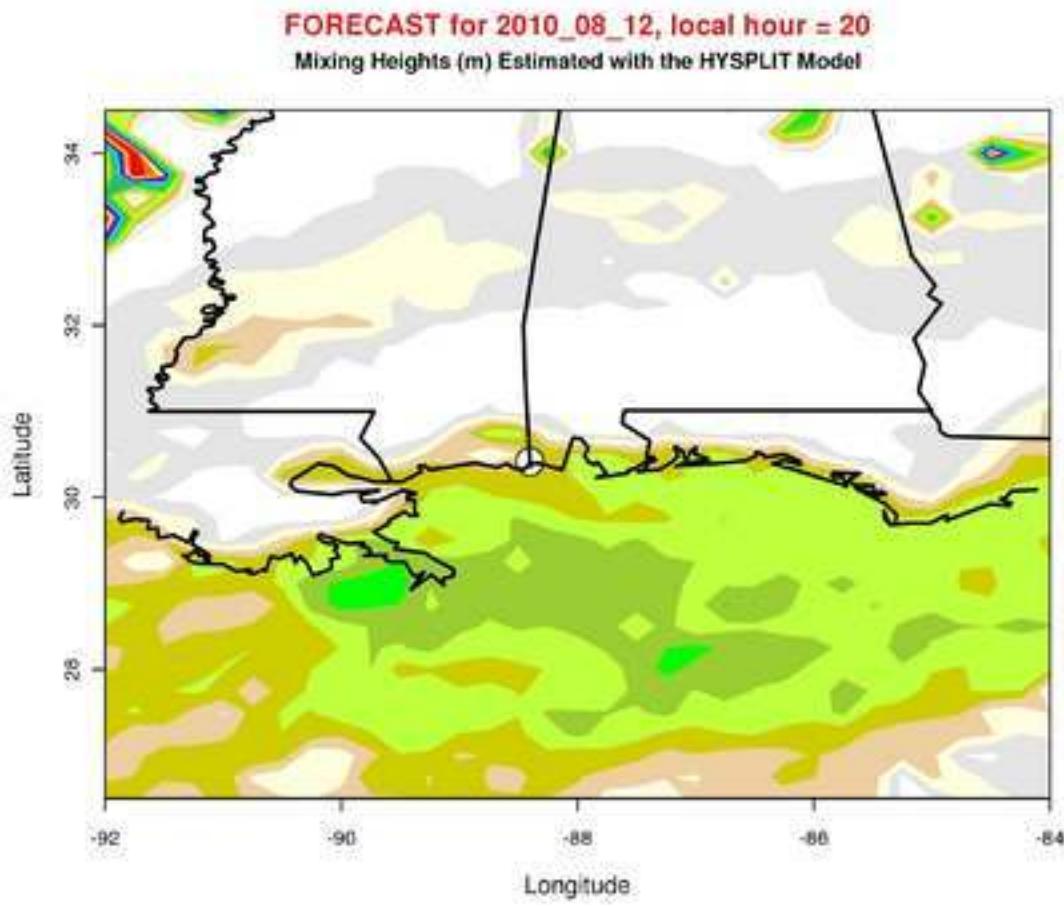
NOAA HYSPLIT MODEL  
Backward trajectories ending at 2100 UTC 12 Aug 10  
00 UTC 12 Aug NAMS Forecast Initialization



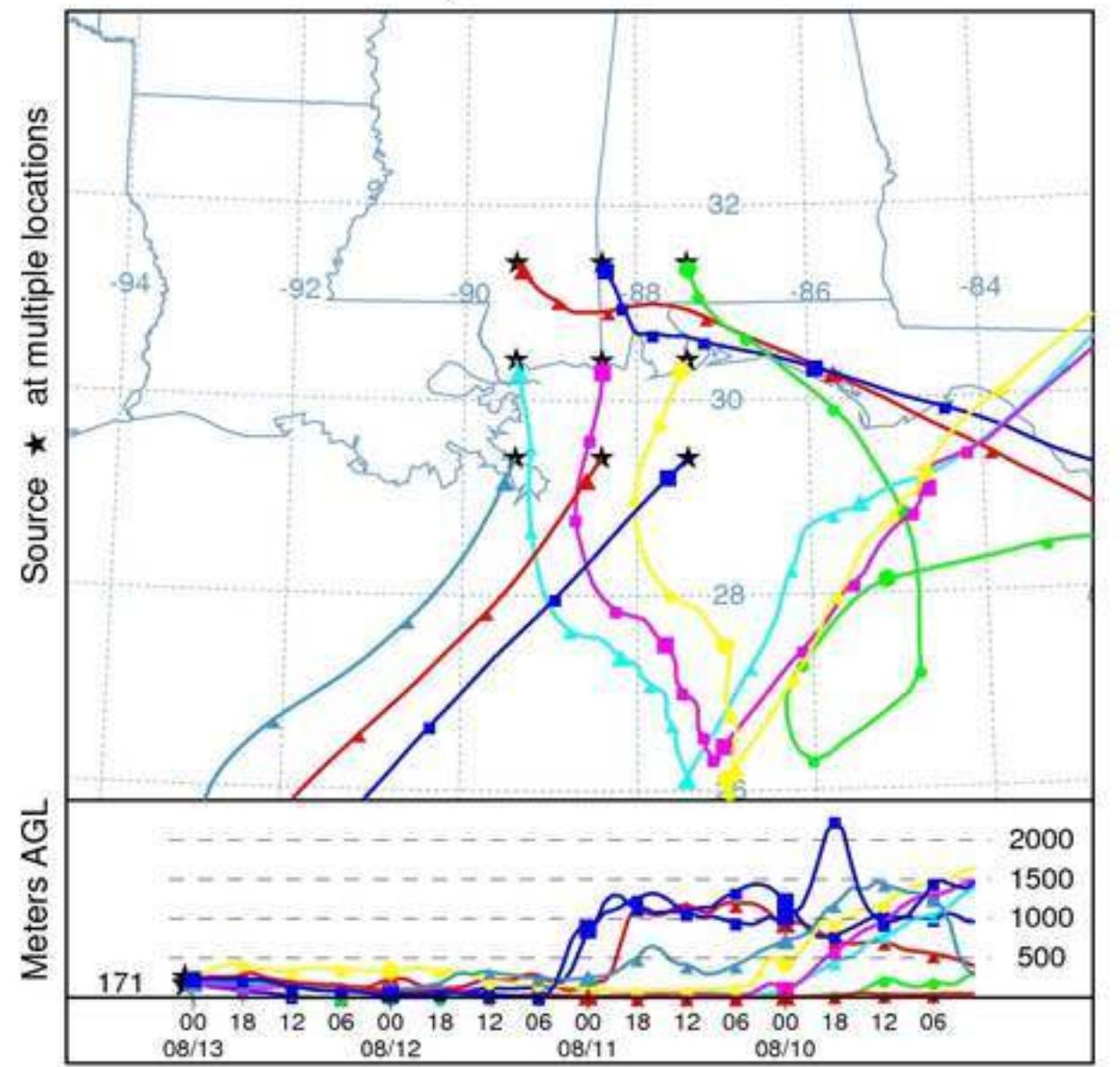




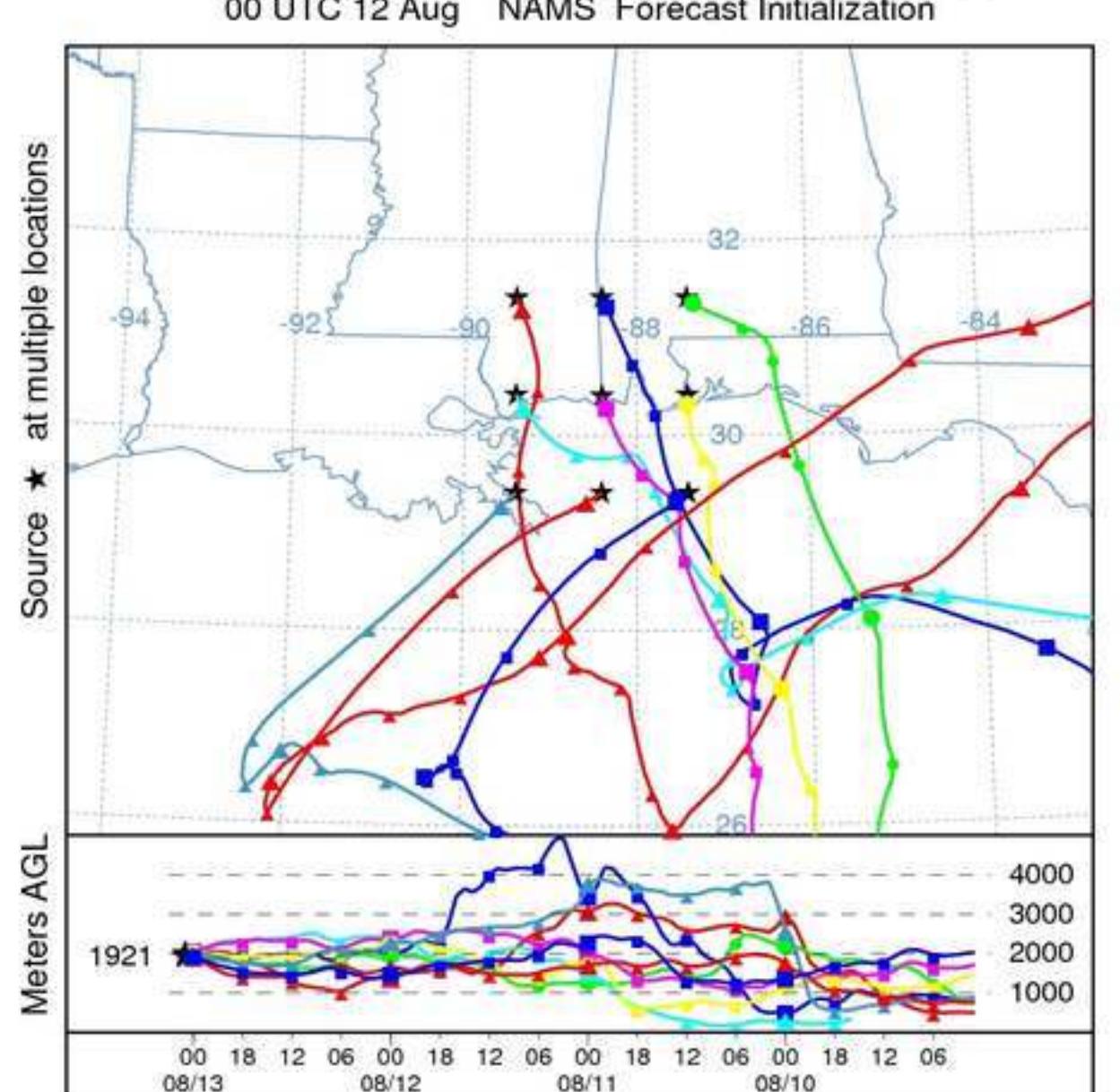




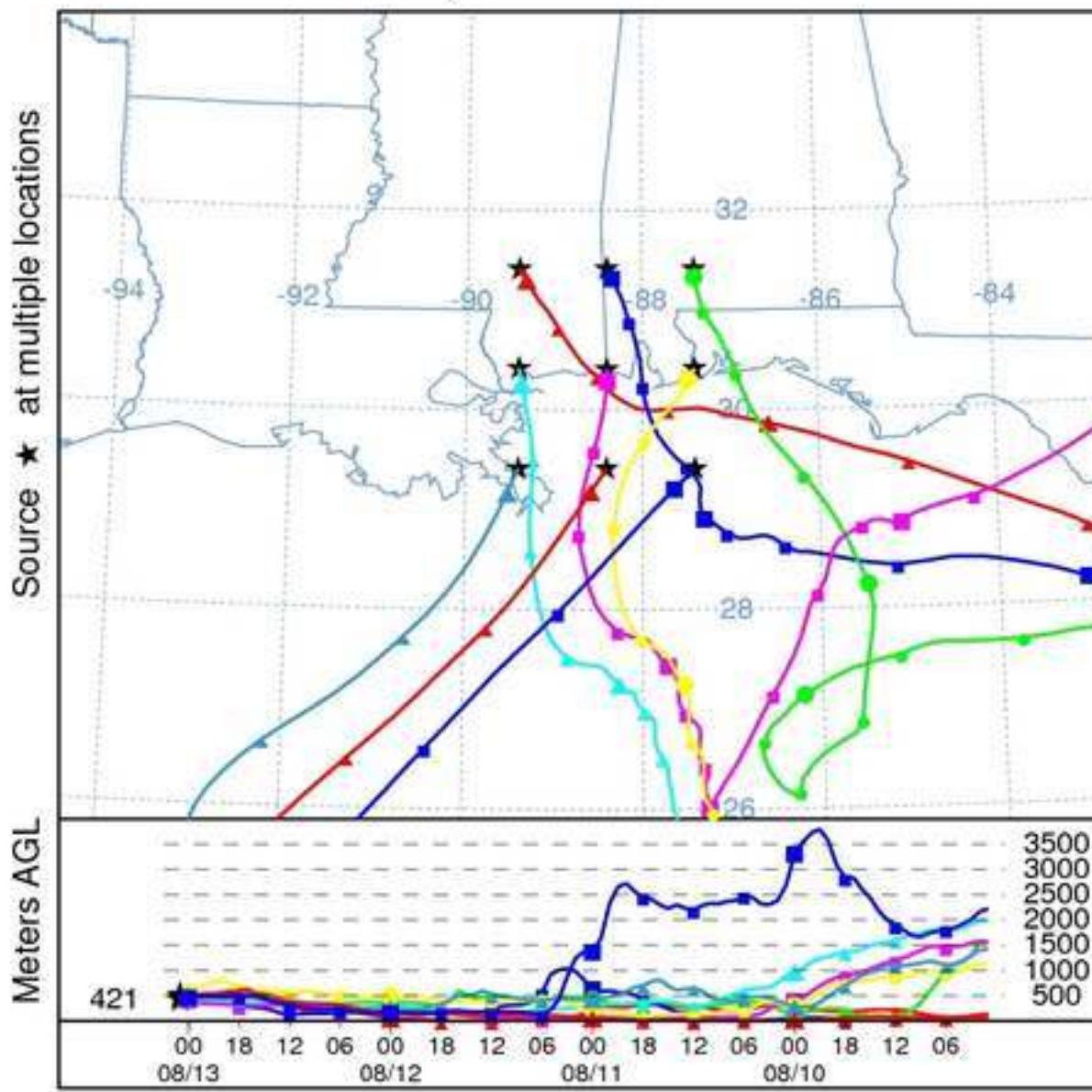
NOAA HYSPLIT MODEL  
Backward trajectories ending at 0100 UTC 13 Aug 10  
00 UTC 12 Aug NAMS Forecast Initialization



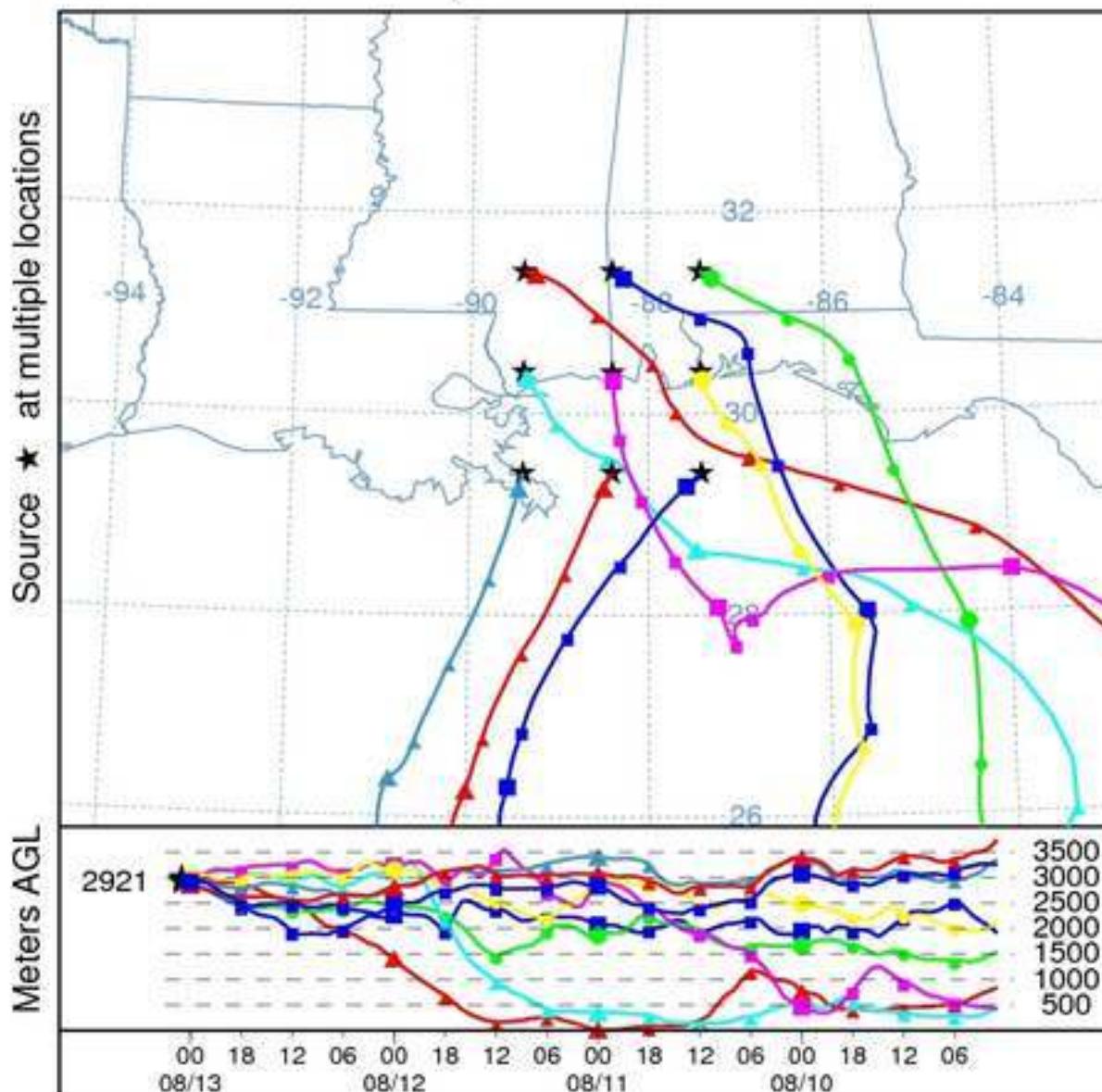
NOAA HYSPLIT MODEL  
Backward trajectories ending at 0100 UTC 13 Aug 10  
00 UTC 12 Aug NAMS Forecast Initialization



**NOAA HYSPLIT MODEL**  
Backward trajectories ending at 0100 UTC 13 Aug 10  
00 UTC 12 Aug NAMS Forecast Initialization



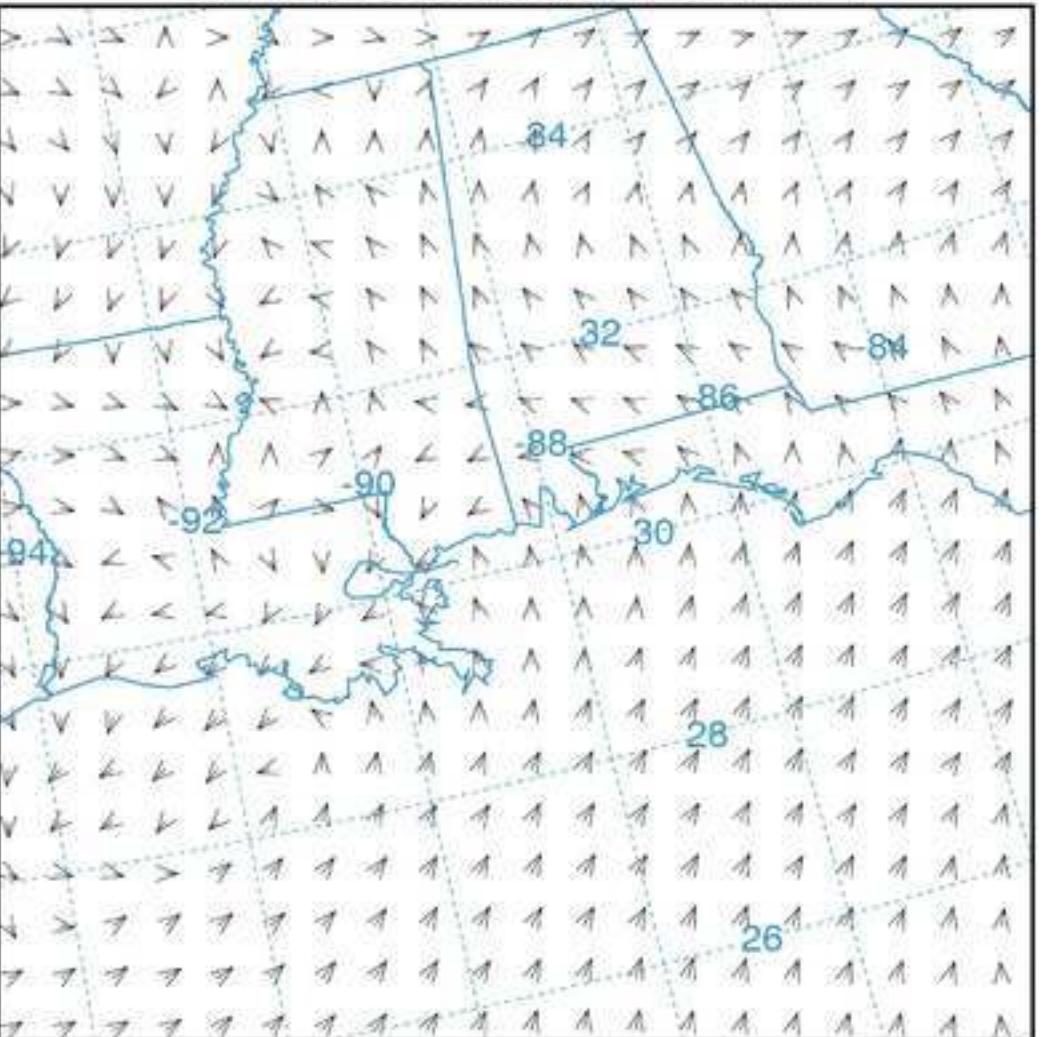
NOAA HYSPLIT MODEL  
Backward trajectories ending at 0100 UTC 13 Aug 10  
00 UTC 12 Aug NAMS Forecast Initialization



The figure consists of two vertically stacked panels sharing a common x-axis representing time from August 13 to August 10. The top panel displays vertical profiles of atmospheric parameters. The y-axis is labeled "Meters AGL". It shows pressure levels at 94, 92, 90, 88, 86, and 84 hPa, with corresponding temperature values of 32, 28, and 26 degrees Celsius. The bottom panel shows aircraft trajectories and flight levels. The y-axis is labeled "Source ★ at multiple locations" and "Meters AGL". It displays flight levels at 921, 1000, 1500, 2000, 2500, and 3000 meters. Black stars indicate source locations, and colored lines with markers show aircraft trajectories. The legend indicates: Source ★ at multiple locations, Meters AGL, Pressure (hPa), Temperature (°C), and Flight Level (meters).

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/14

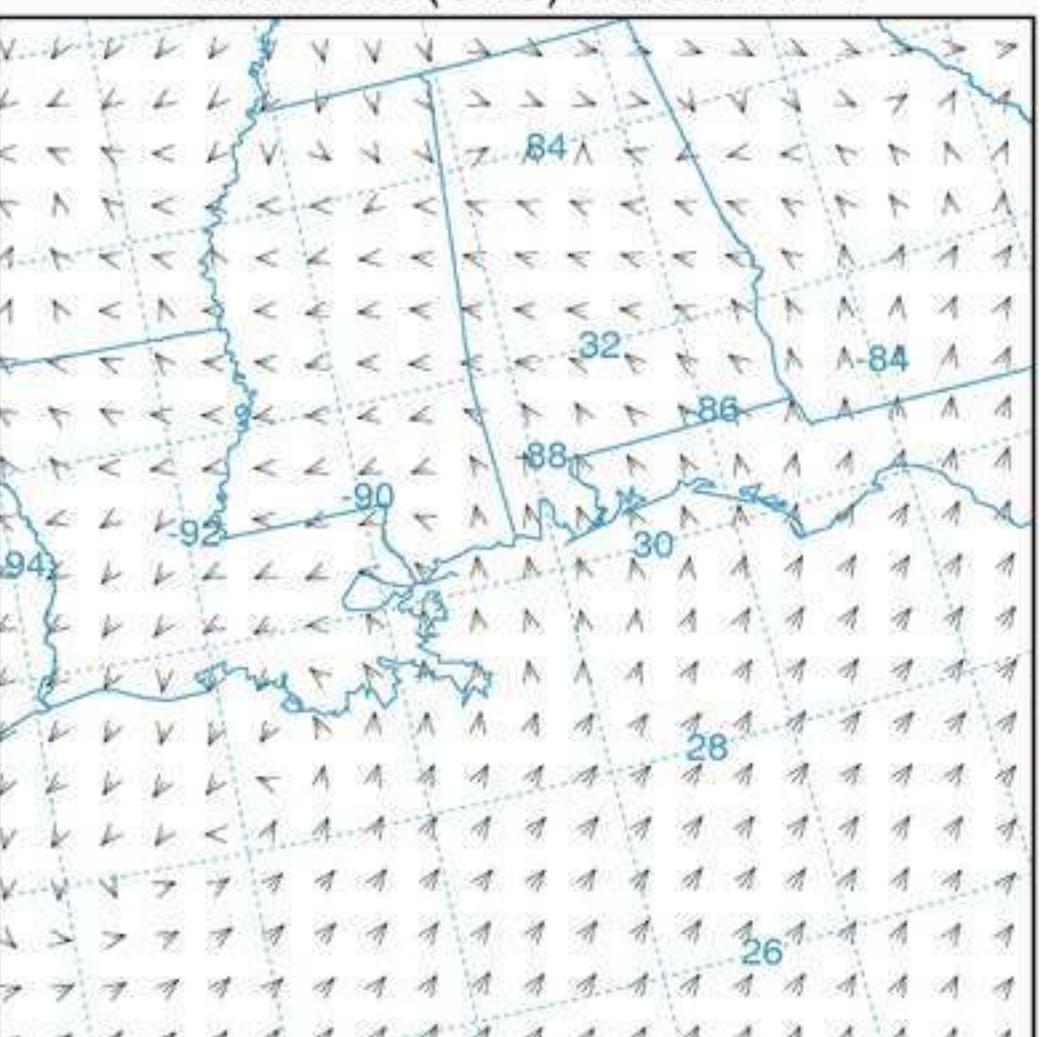


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/14

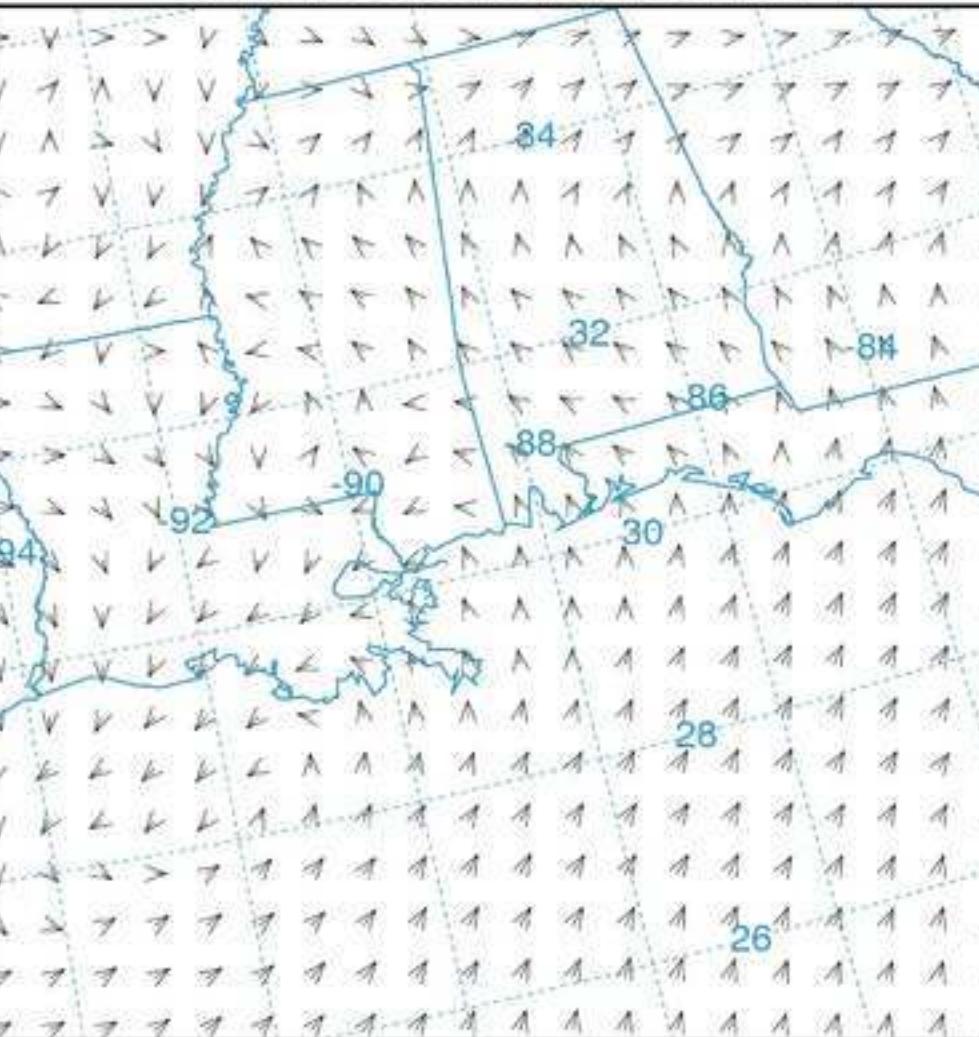


VECT ( 11) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/14

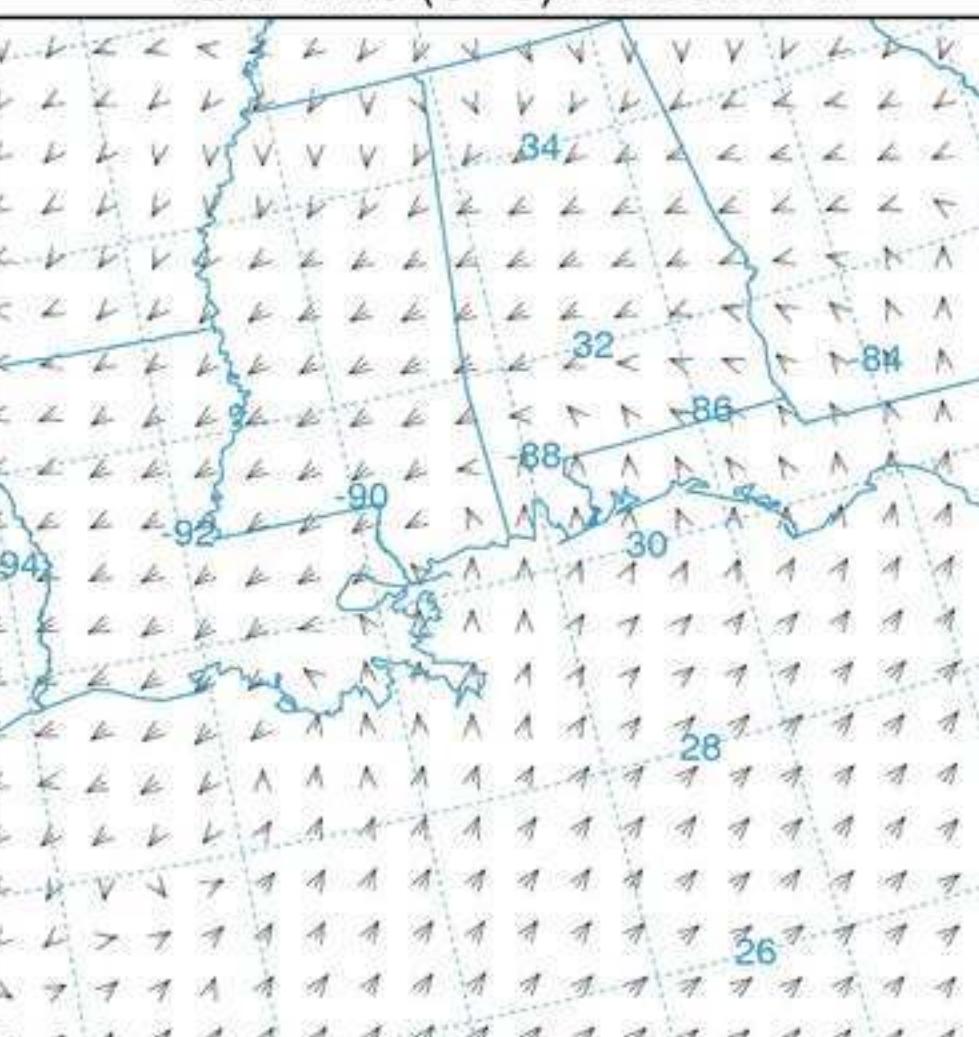


VECT ( 11) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/14

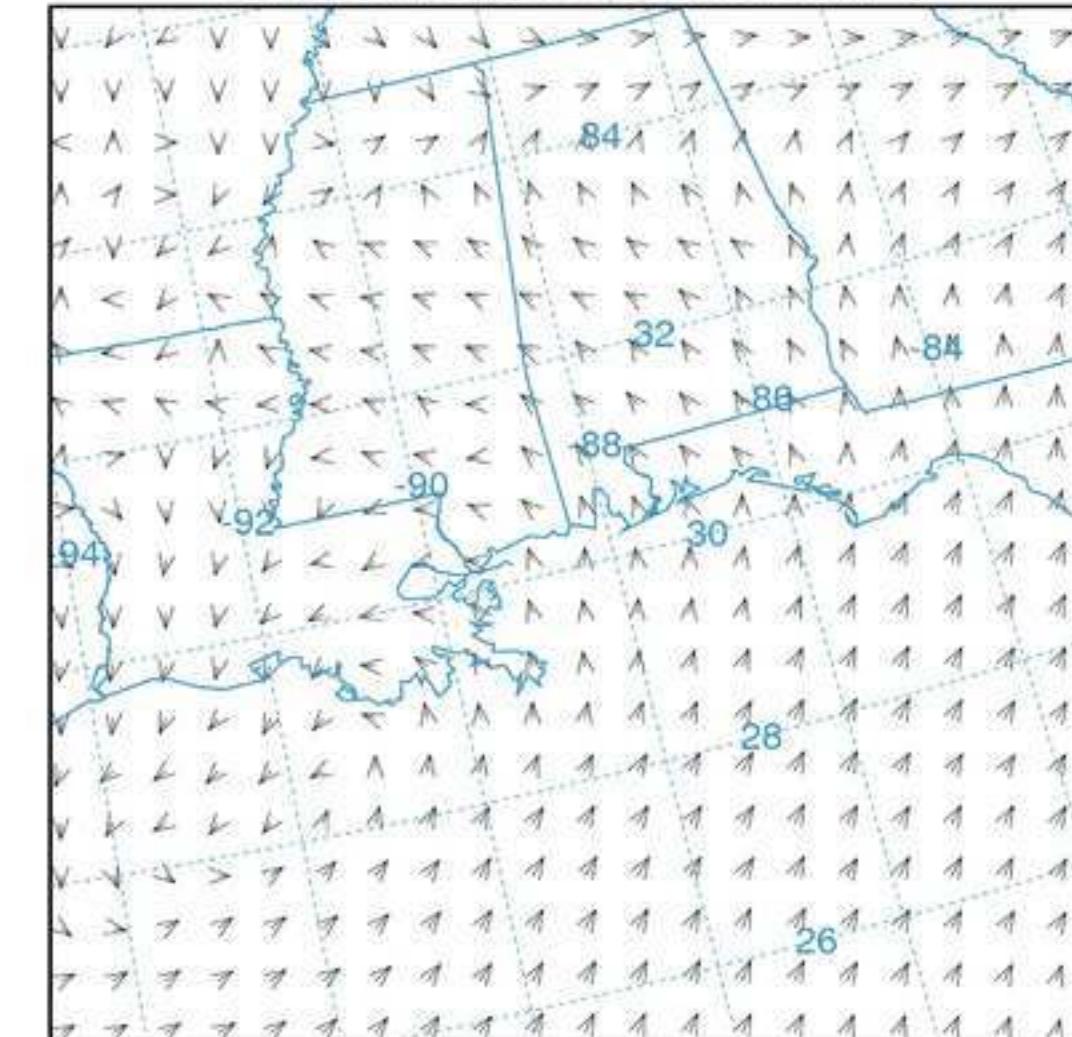


VECT ( 11) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/14

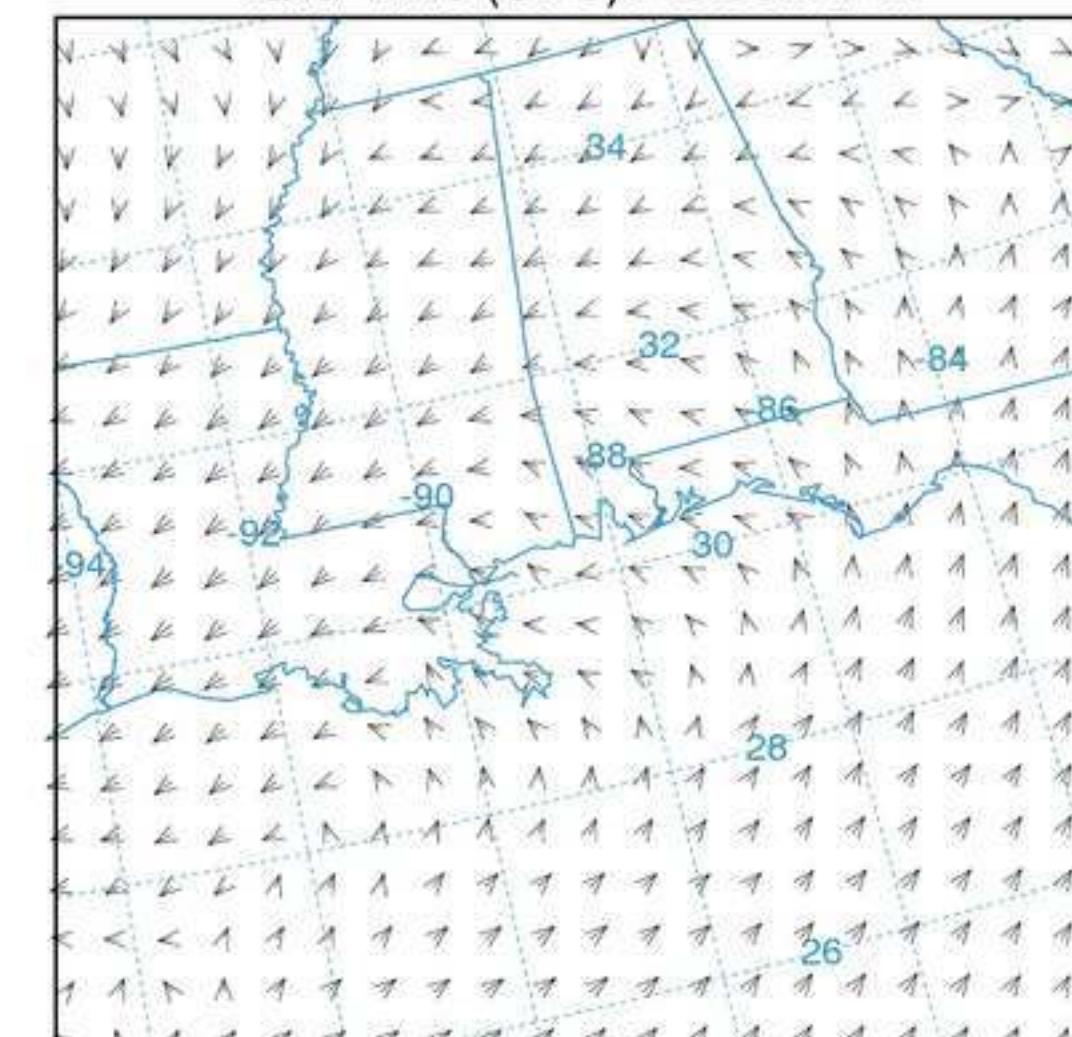


VECT ( 11) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/14

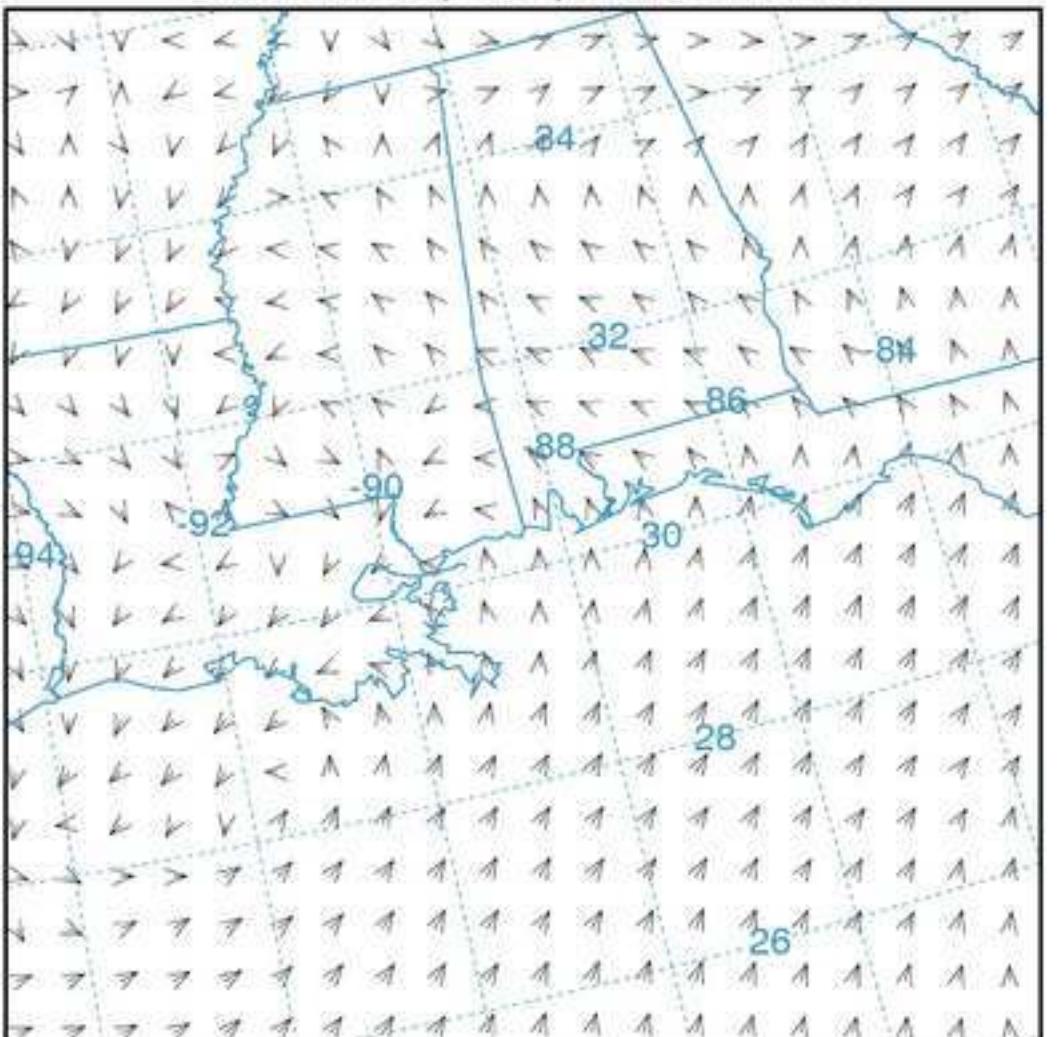


VECT ( 9) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/15

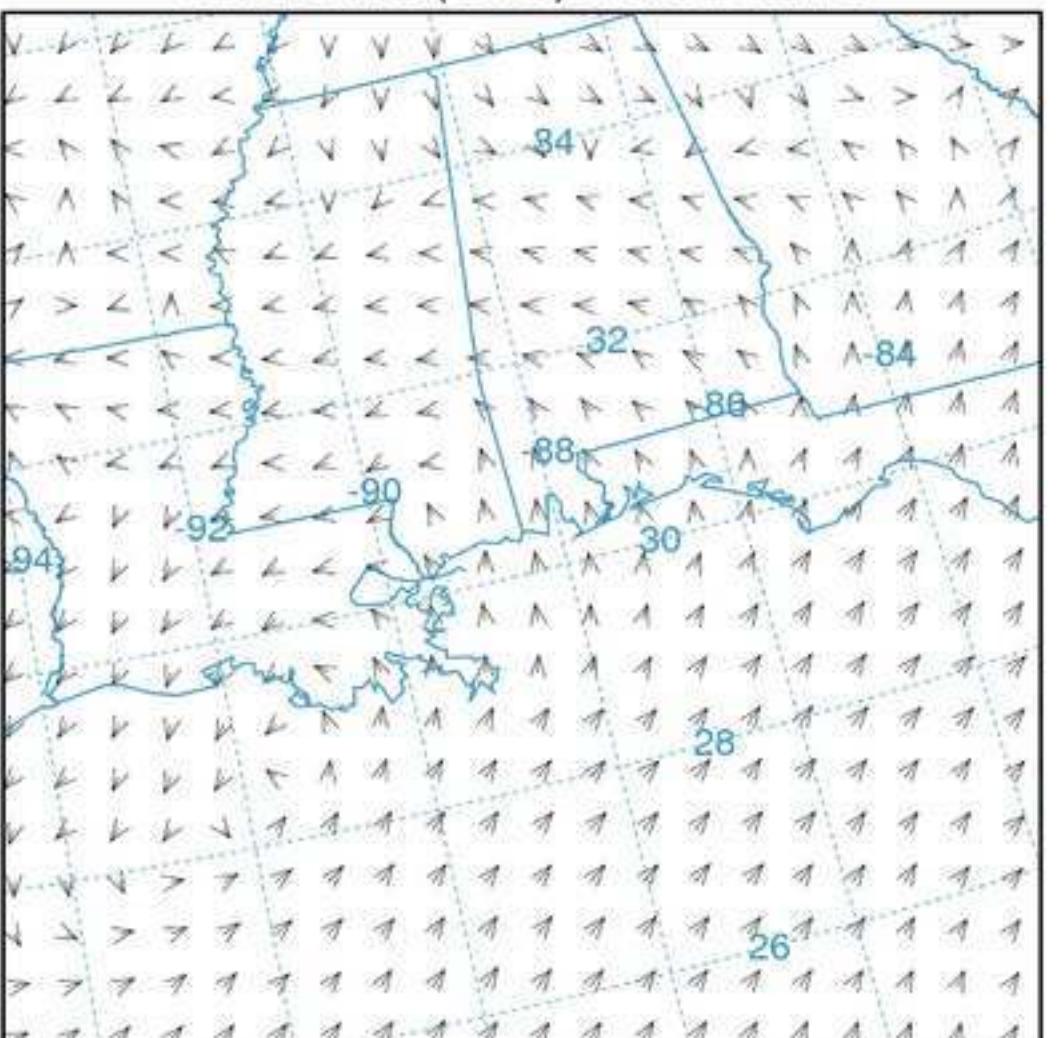


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/15

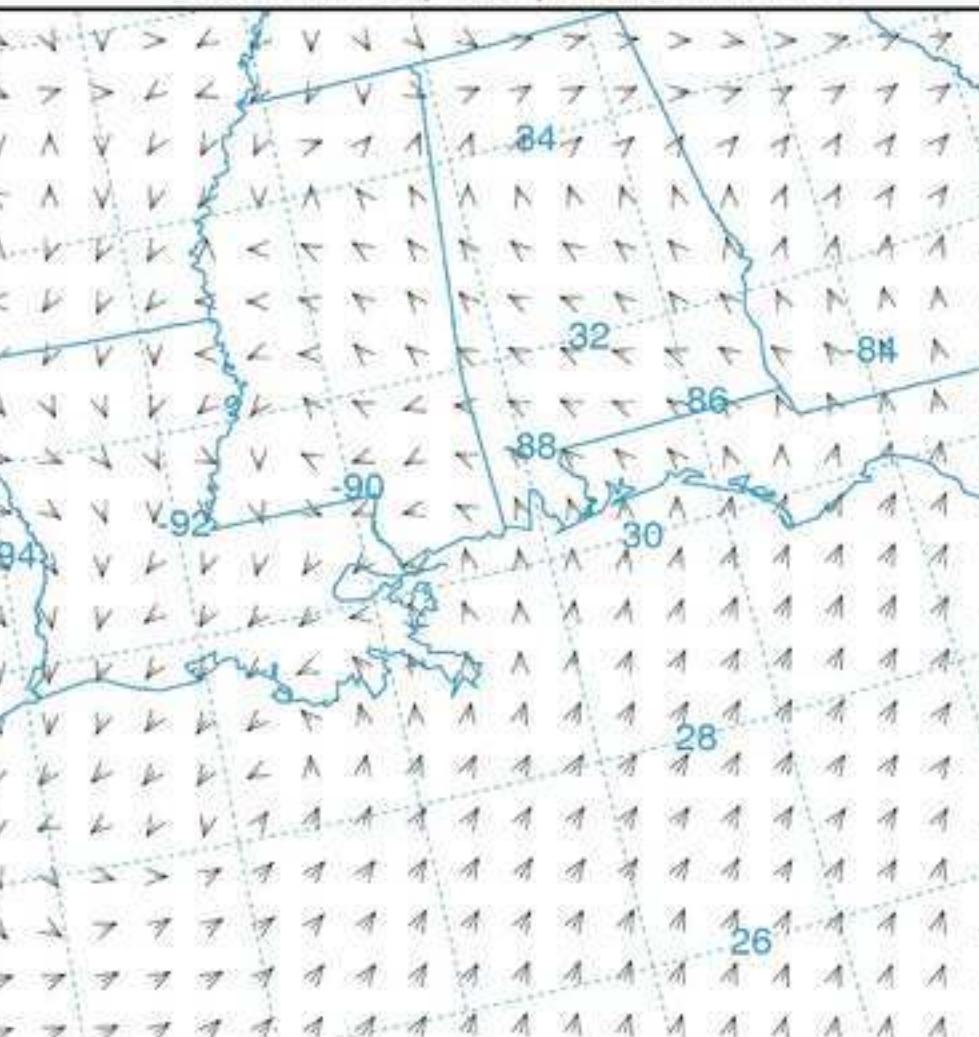


VECT ( 11) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/15



VECT ( 11) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/15

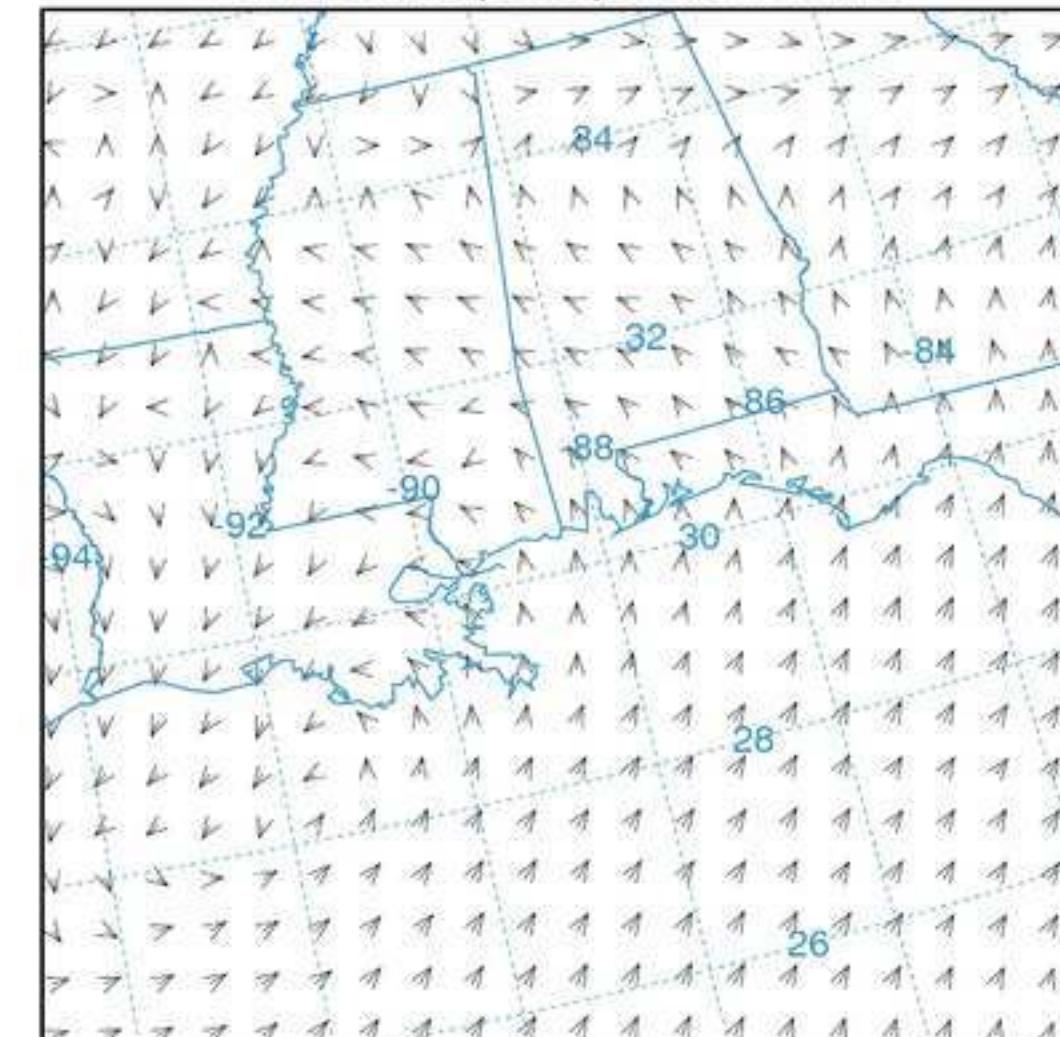


VECT ( 12) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/15

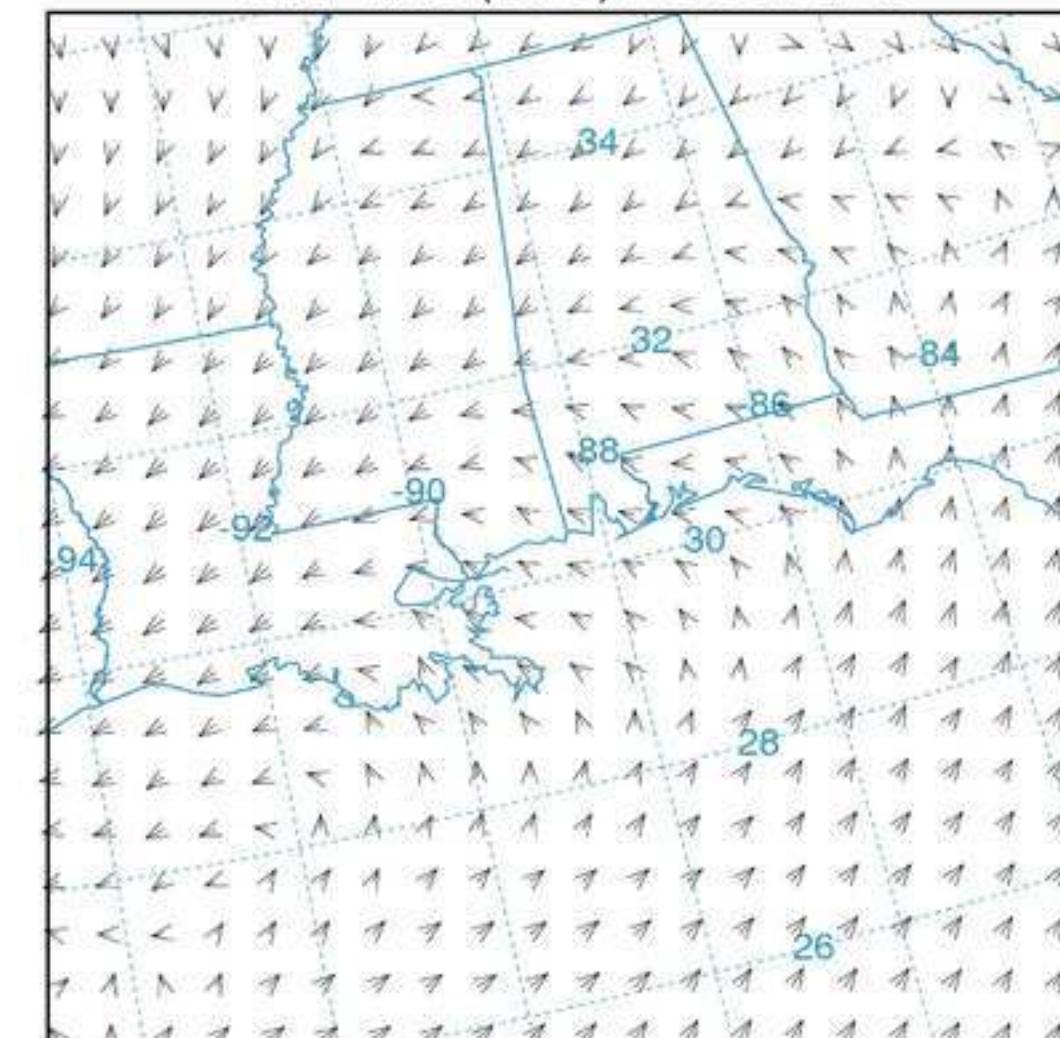


VECT ( 11) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/15

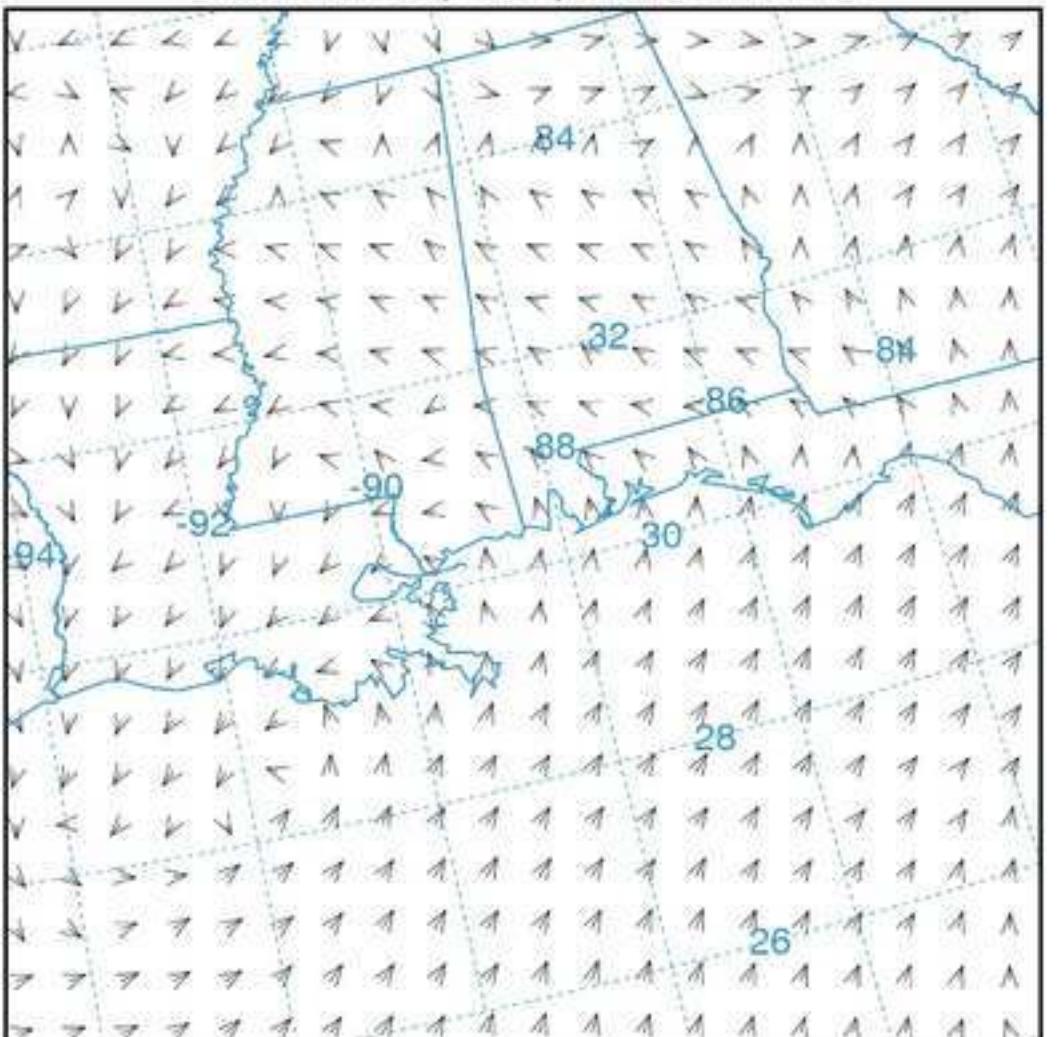


VECT ( 9) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/16

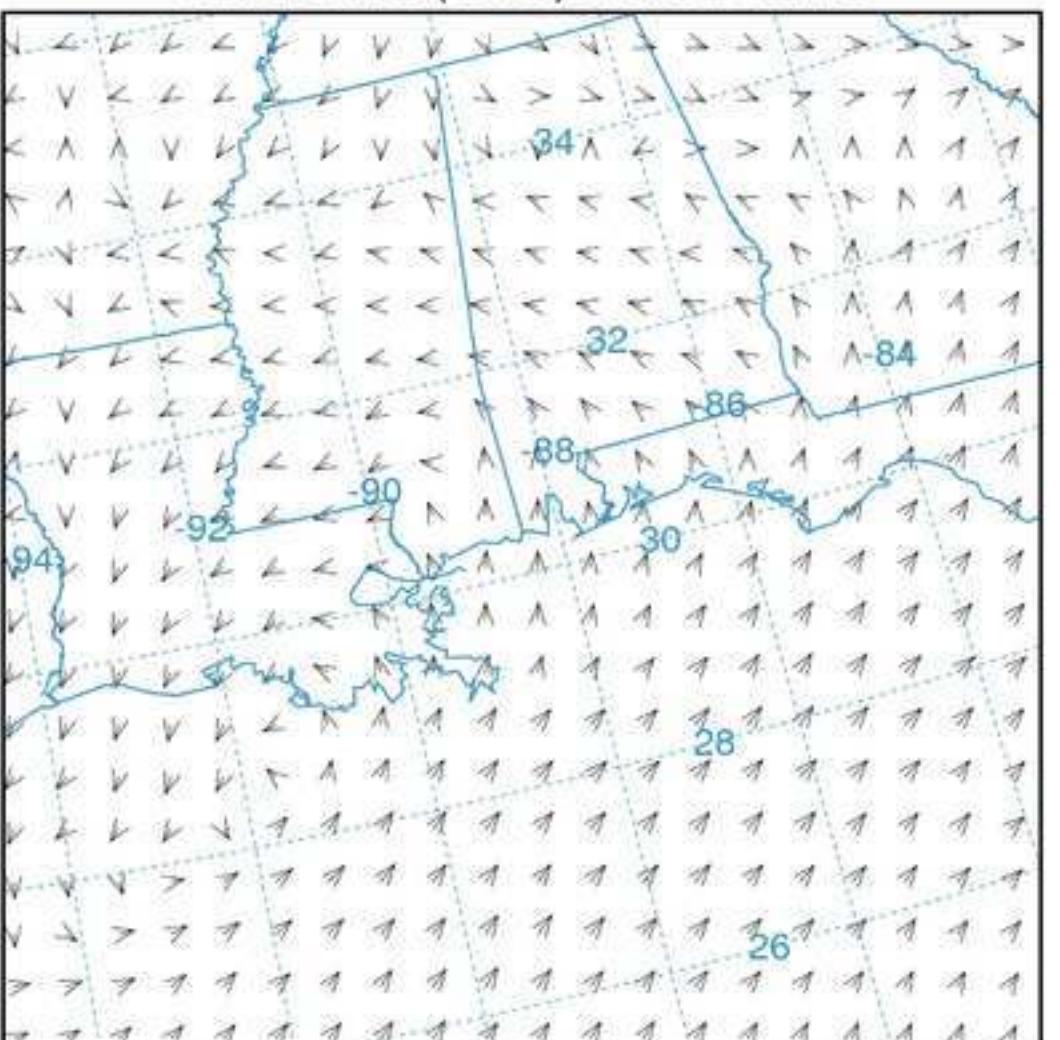


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/16

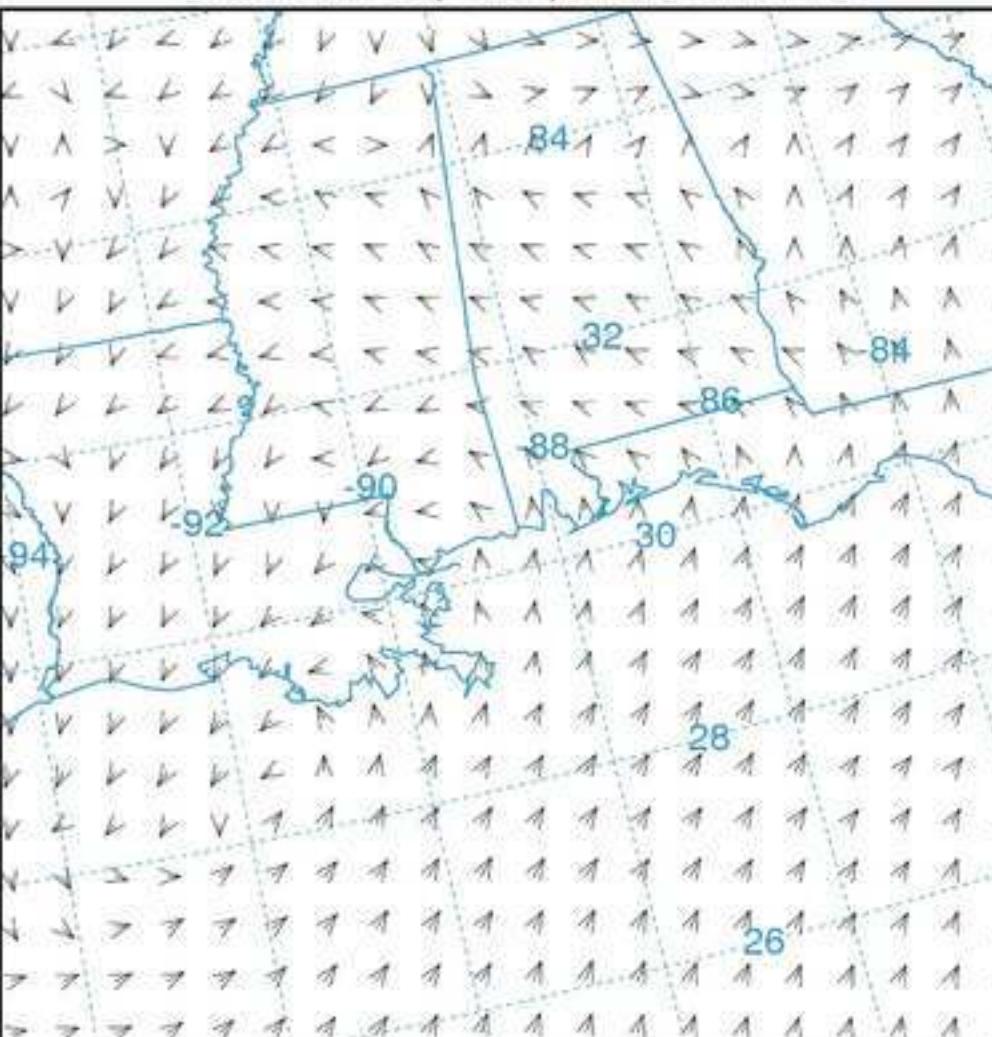


VECT ( 11) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/16

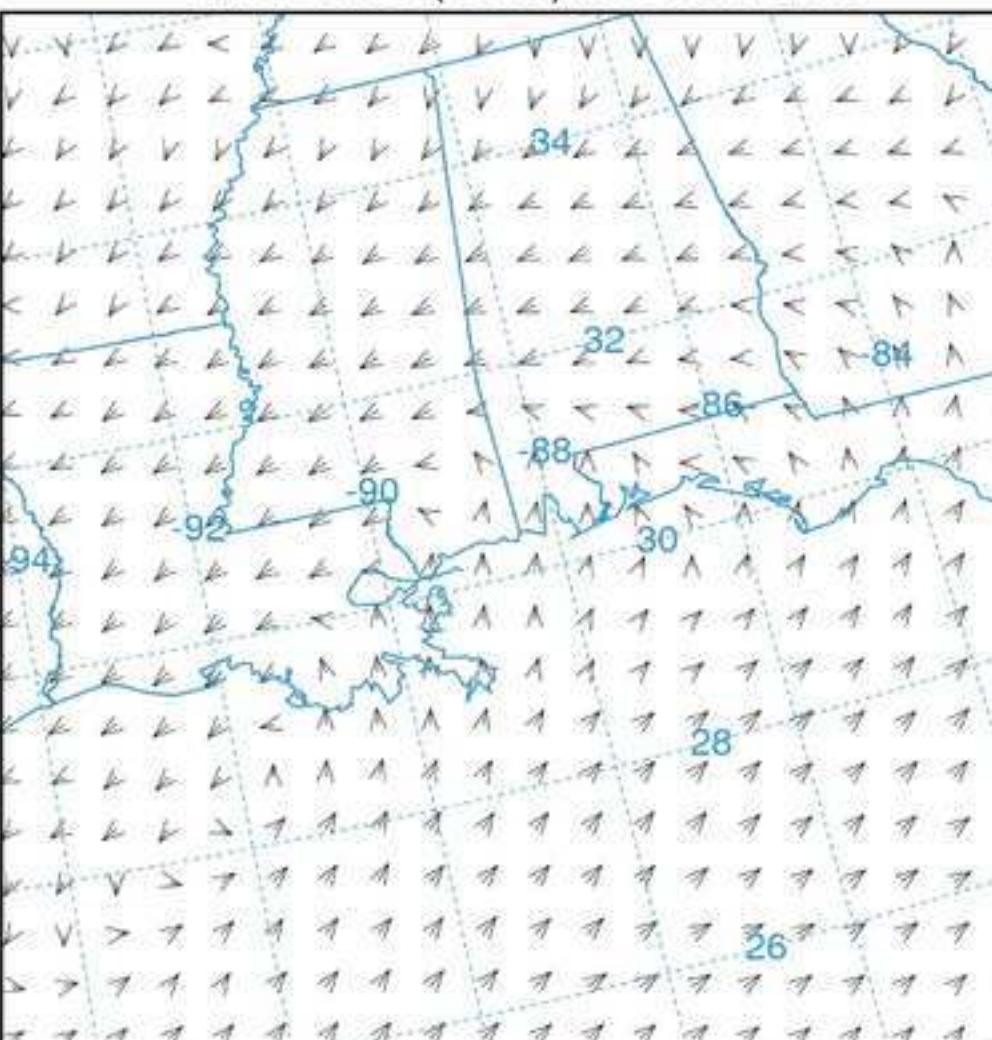


VECT ( 11) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/16

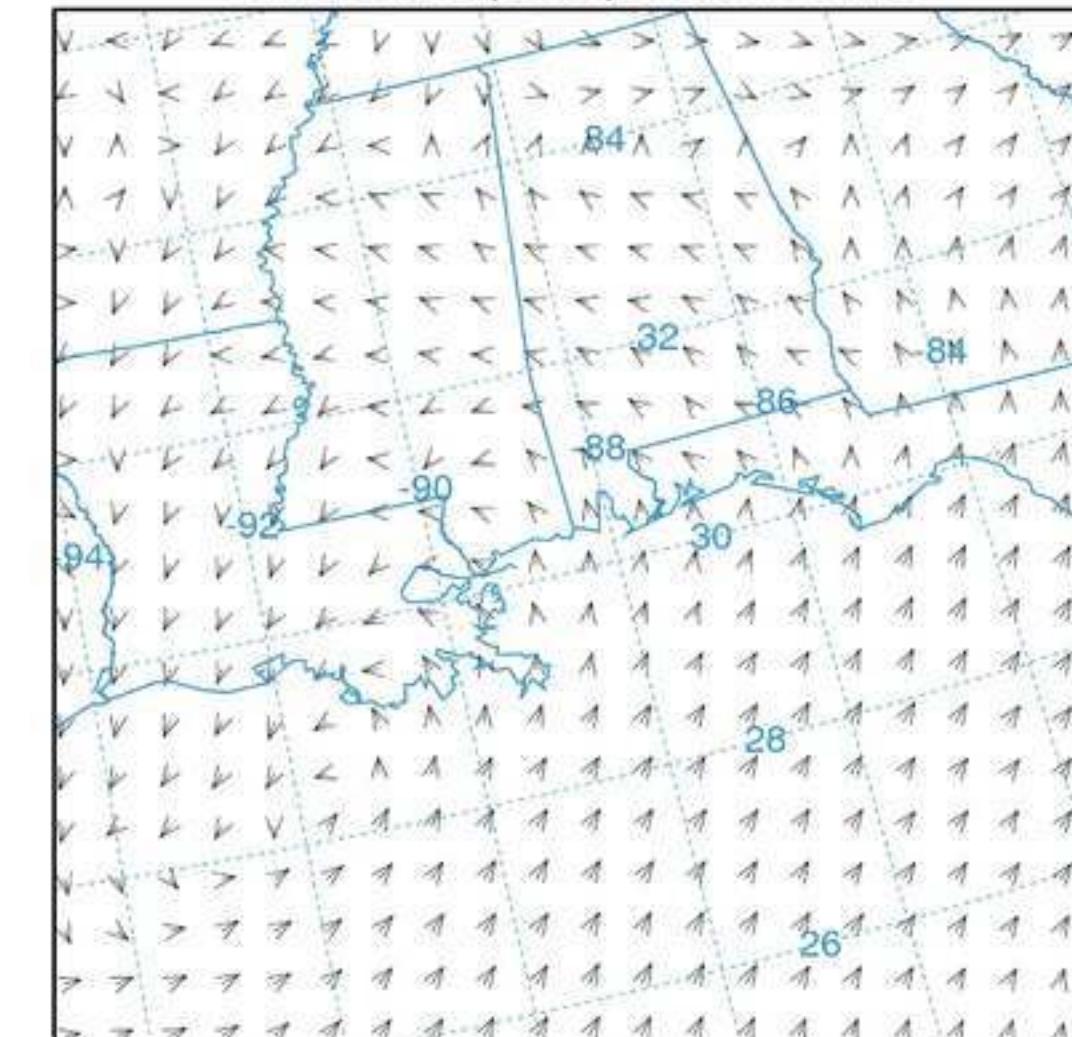


VECT ( 11) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/16

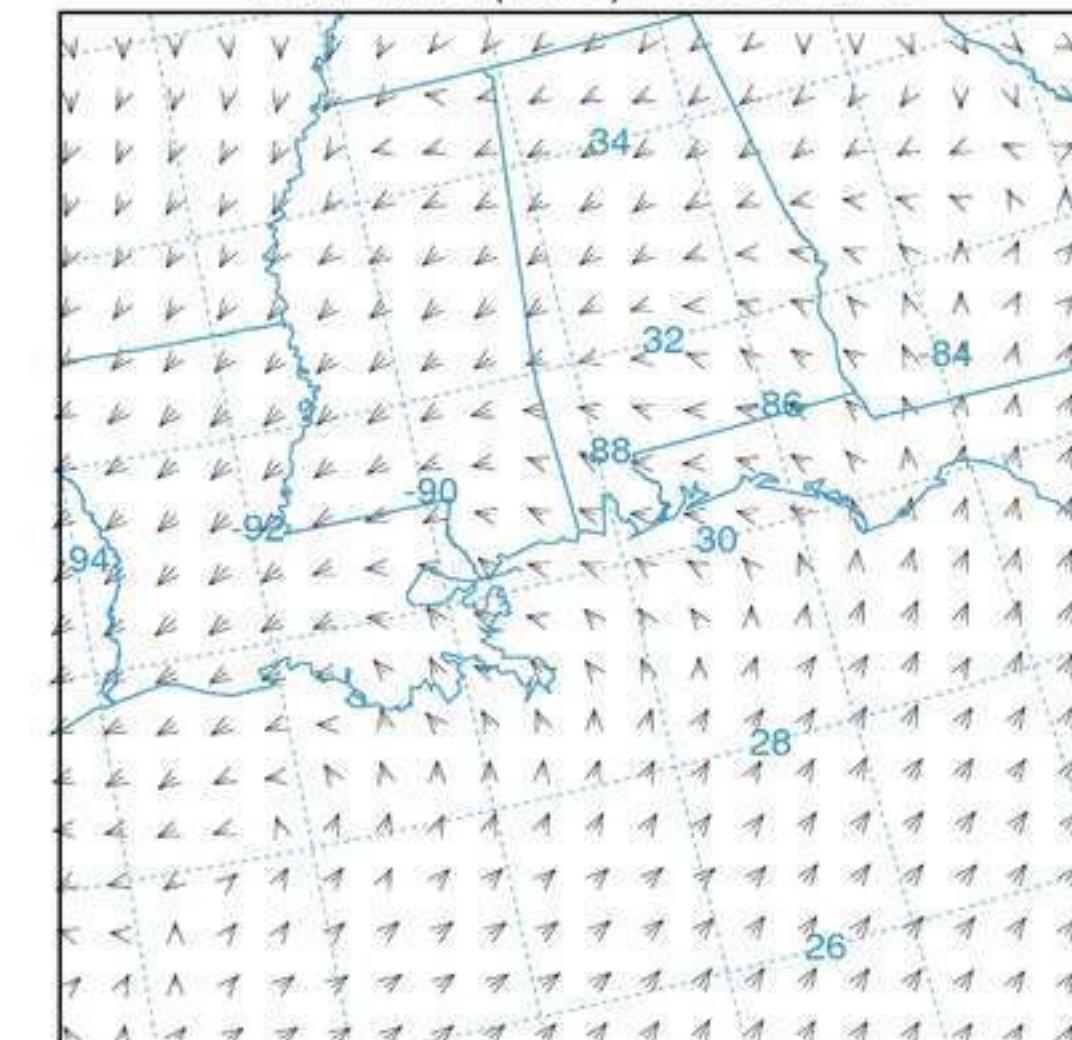


VECT ( 11) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/16

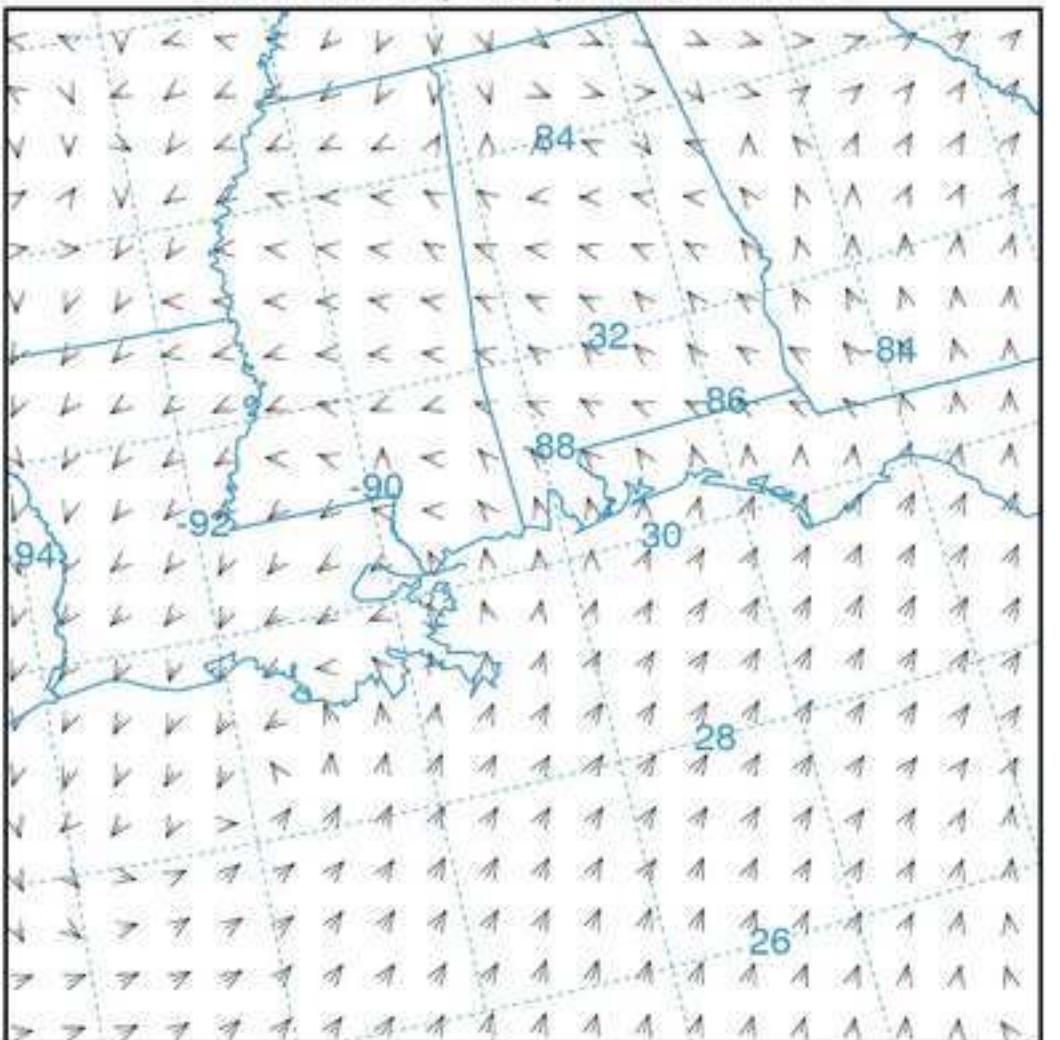


VECT ( 9) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/17

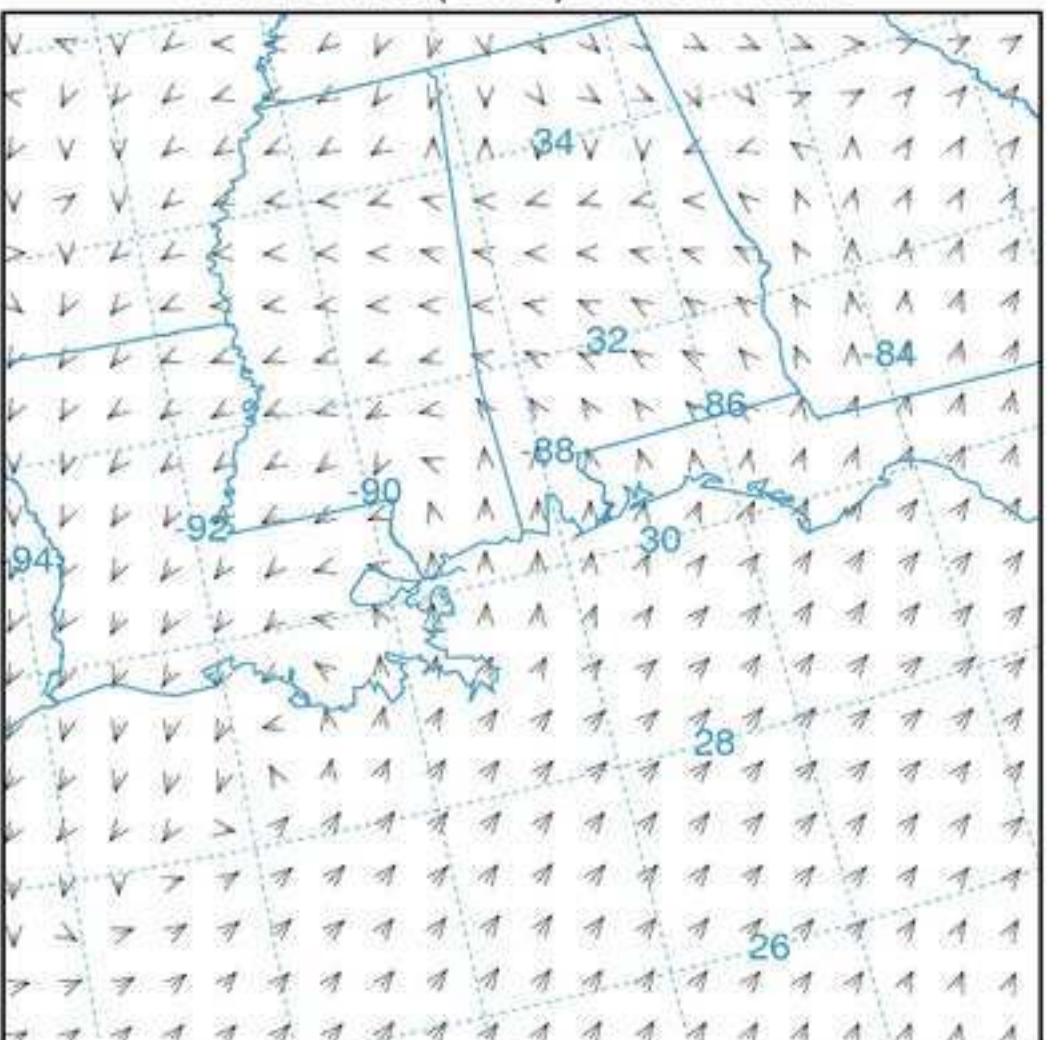


VECT ( 9) AT HEIGHT: 1.000

Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/17

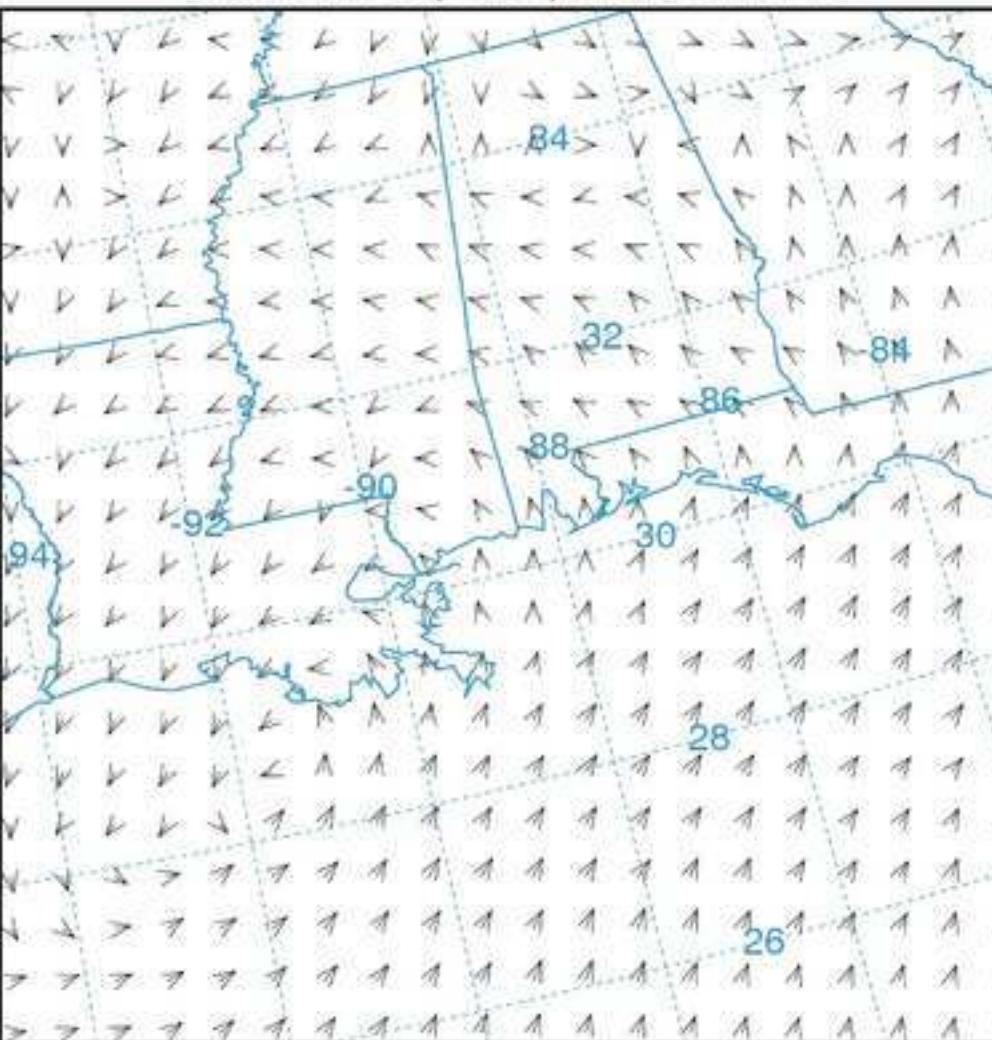


VECT ( 11) AT HEIGHT: 0.904

Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/17

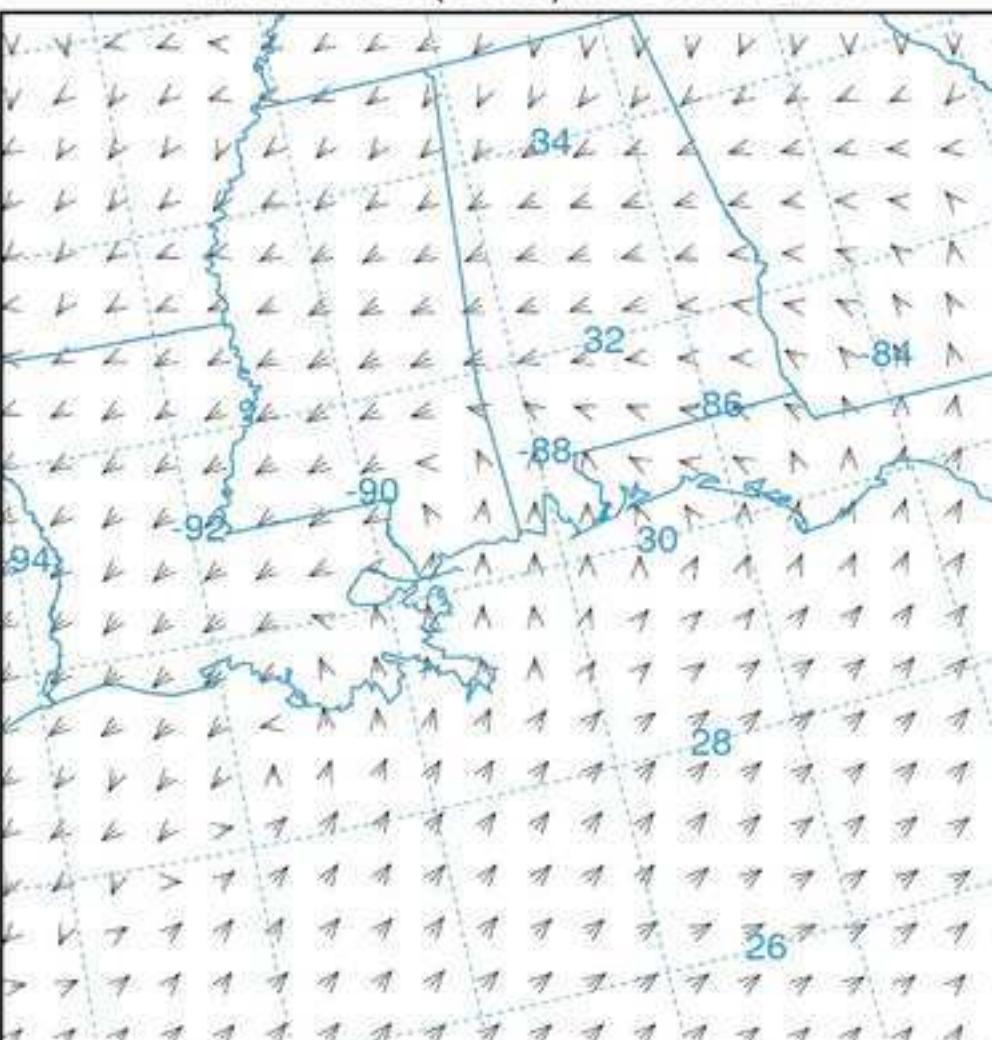


VECT ( 11) AT HEIGHT: 0.963

Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/17

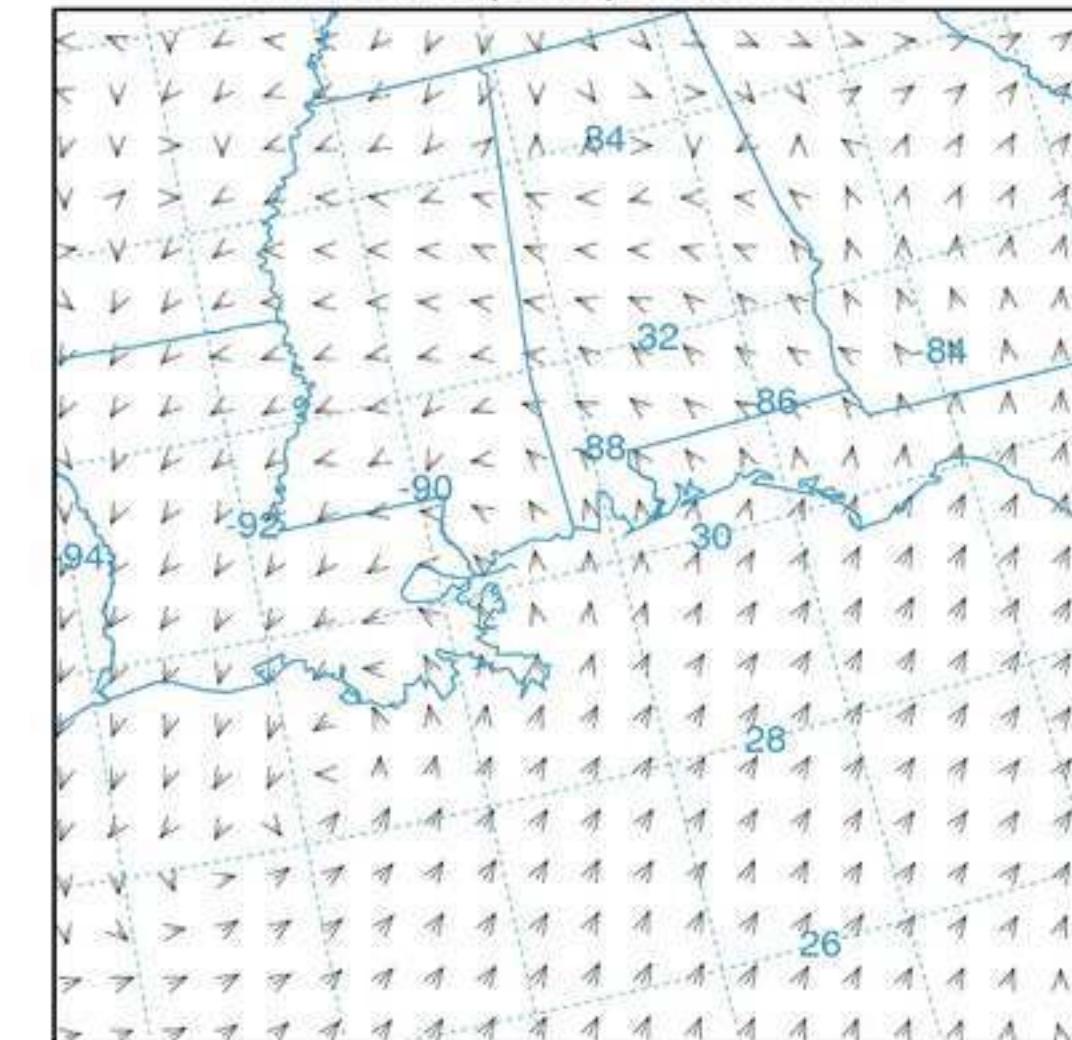


VECT ( 11) AT HEIGHT: 0.826

Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/17

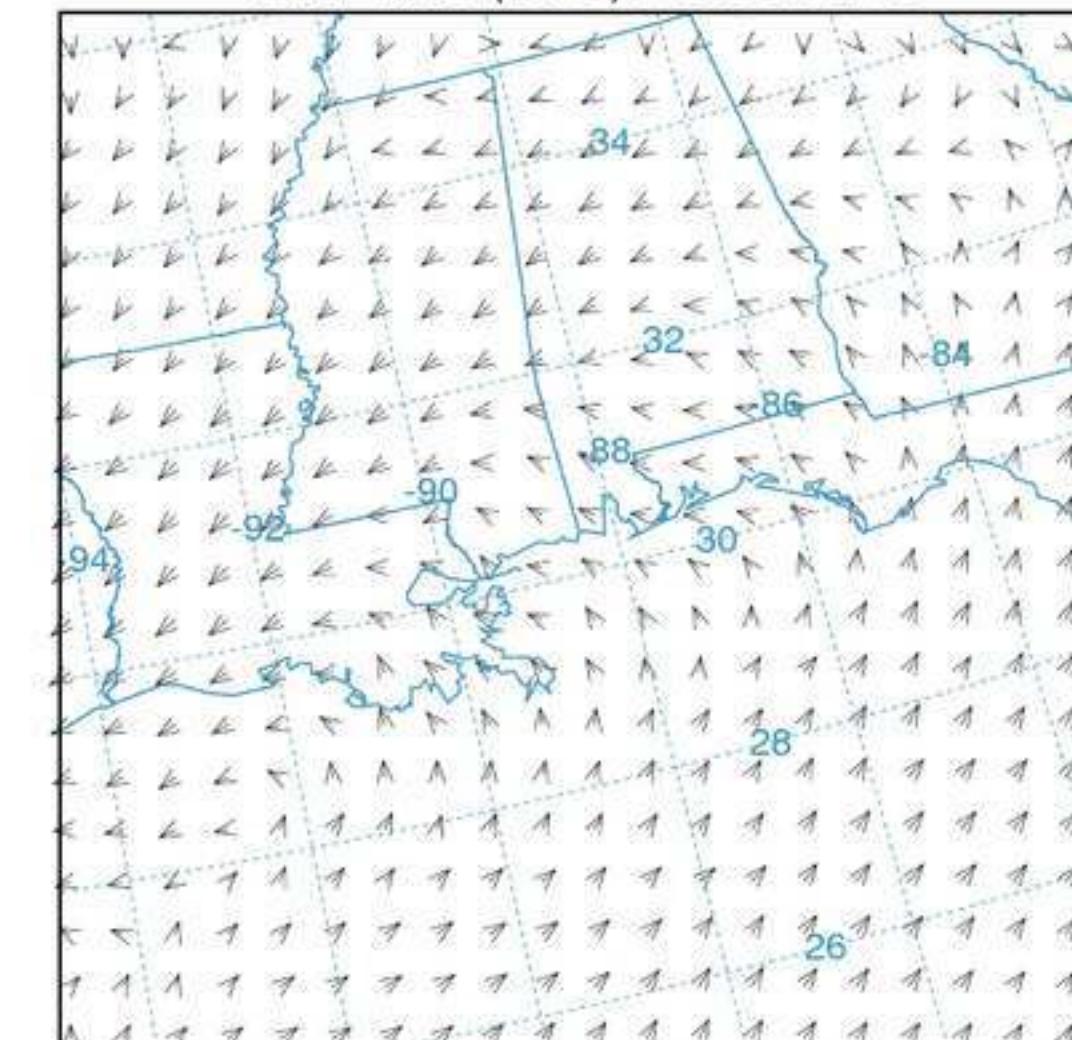


VECT ( 11) AT HEIGHT: 0.940

Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/17

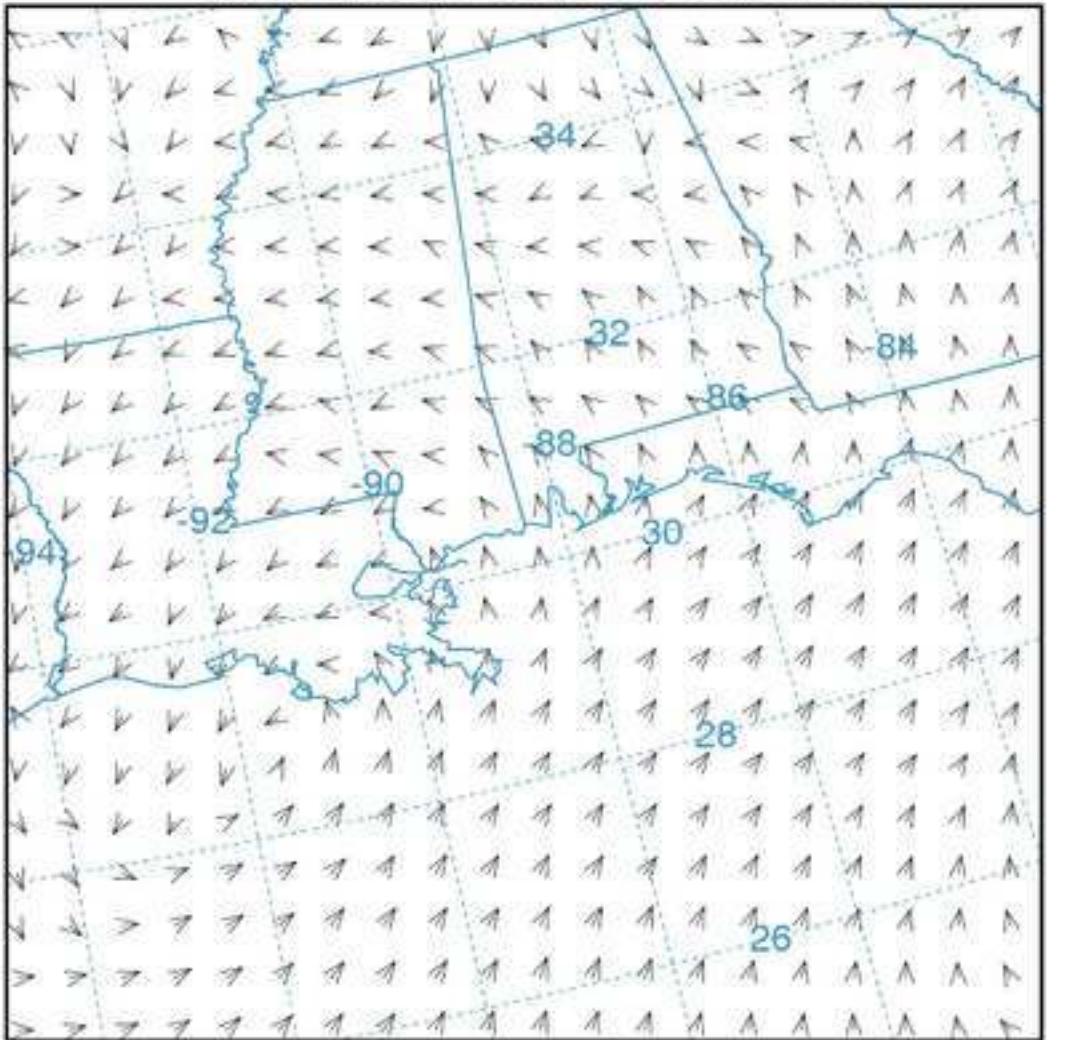


VECT ( 9) AT HEIGHT: 0.718

Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/18

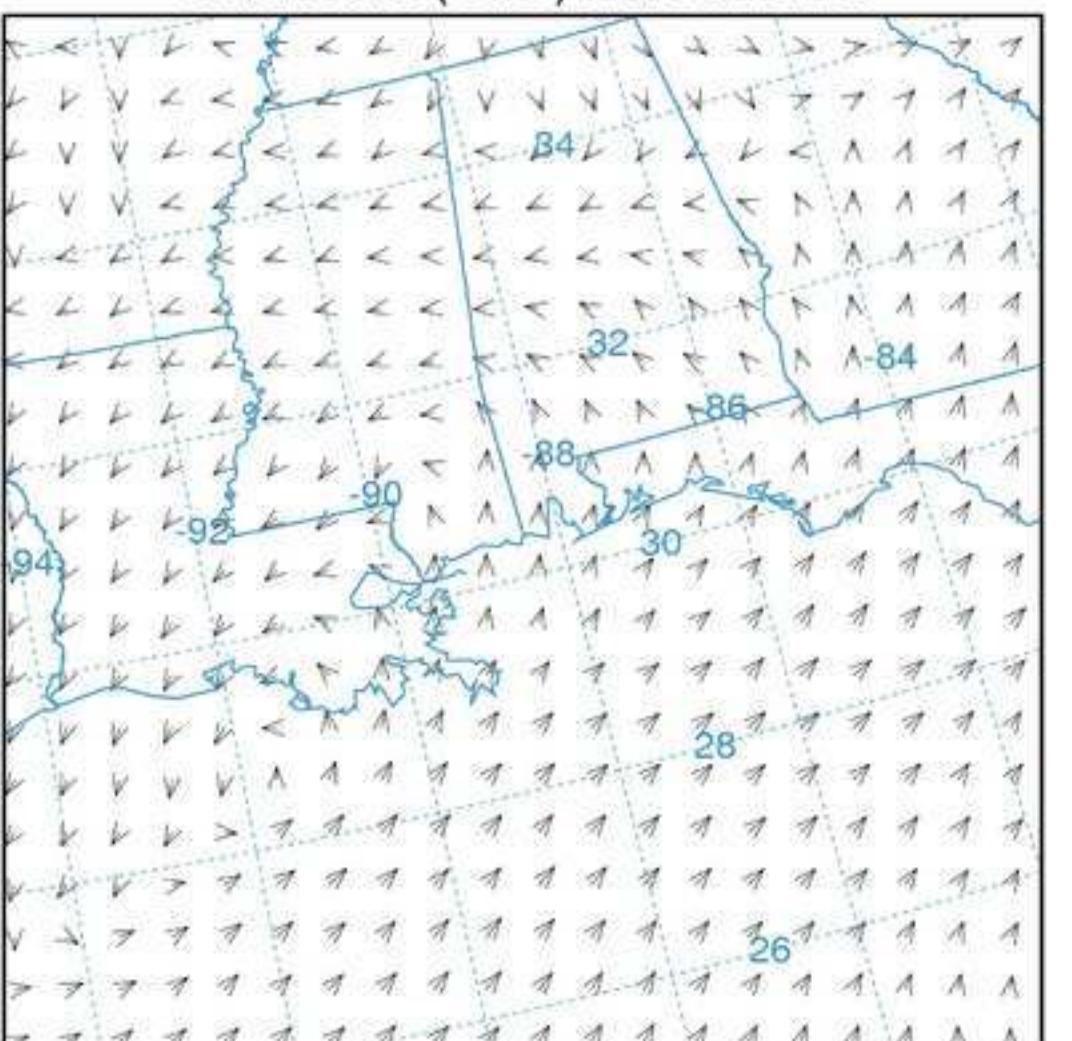


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/18

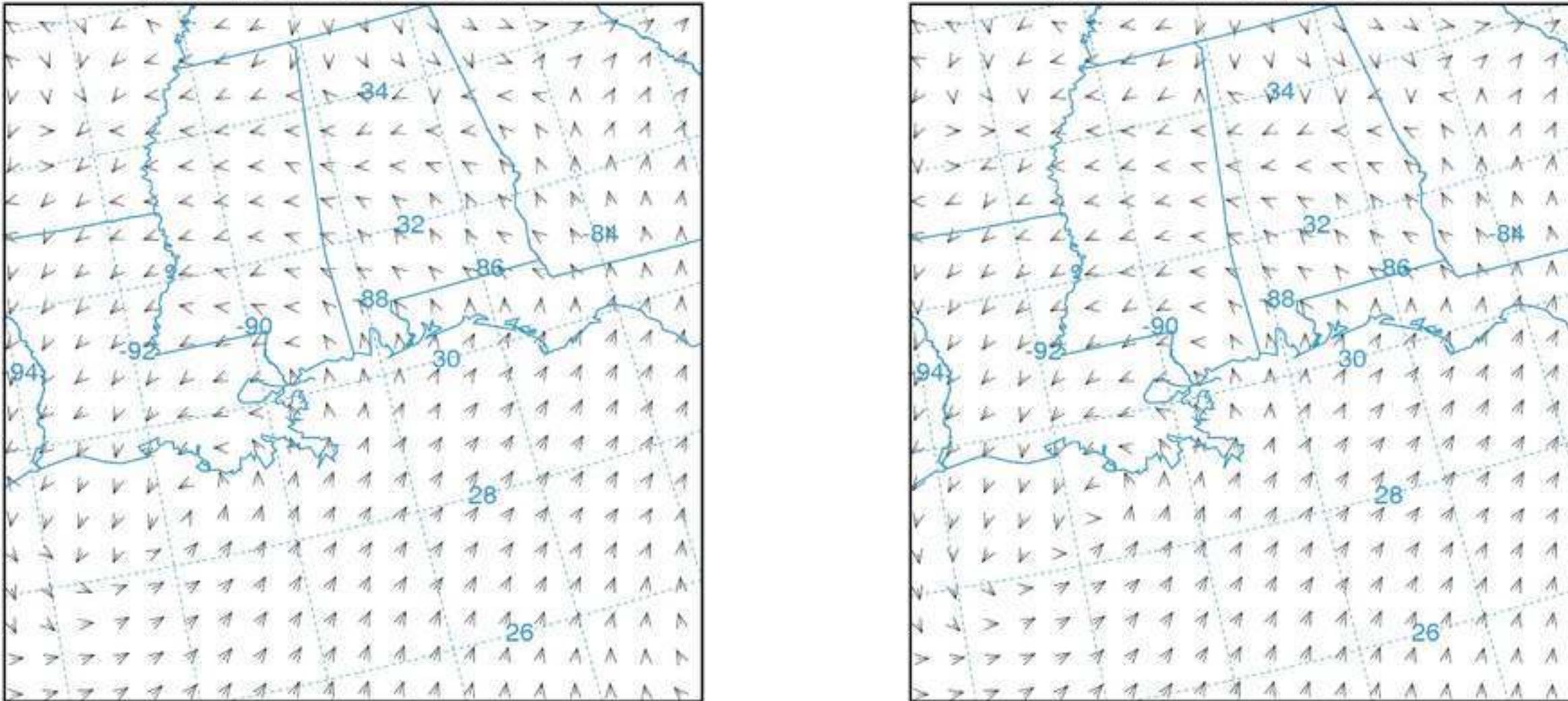


VECT ( 10) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/18

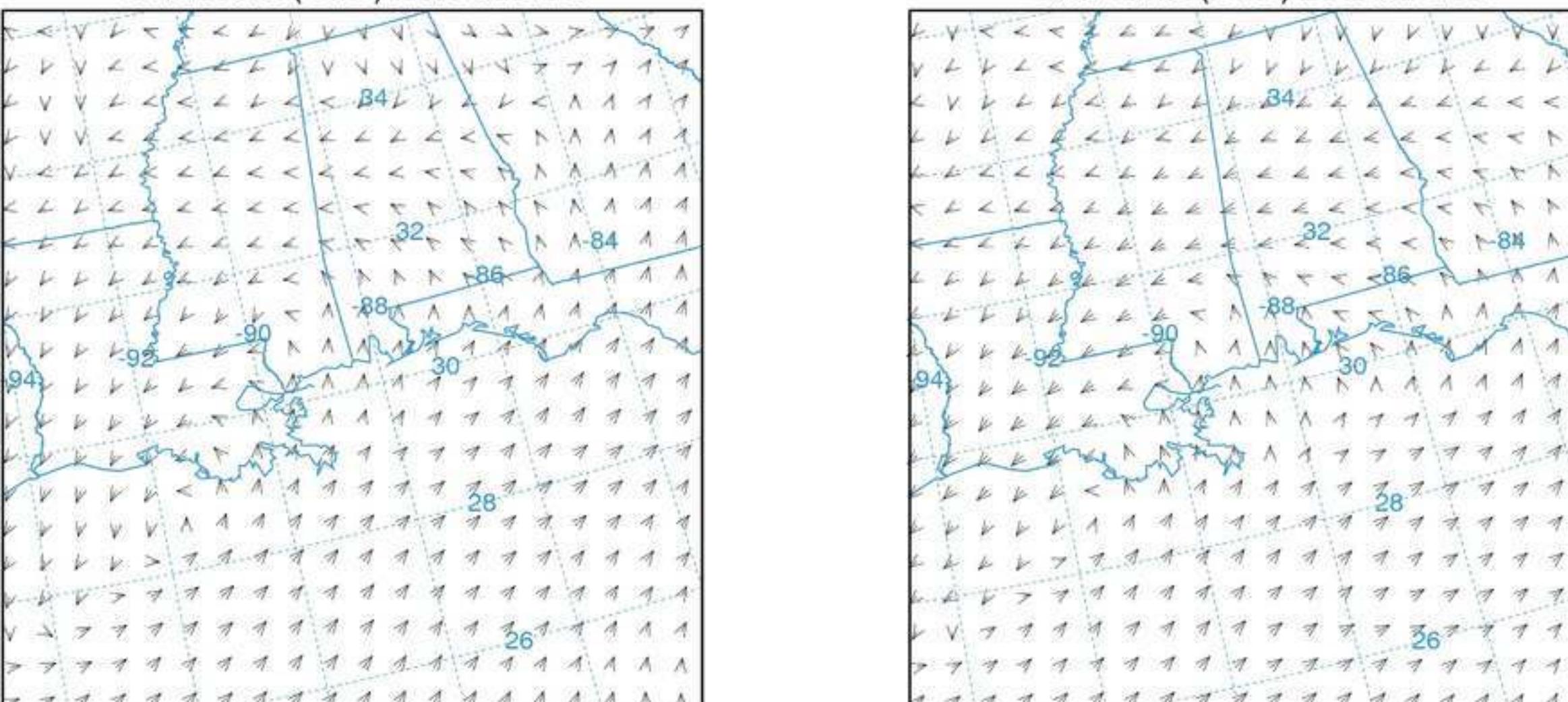


VECT ( 10) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/18

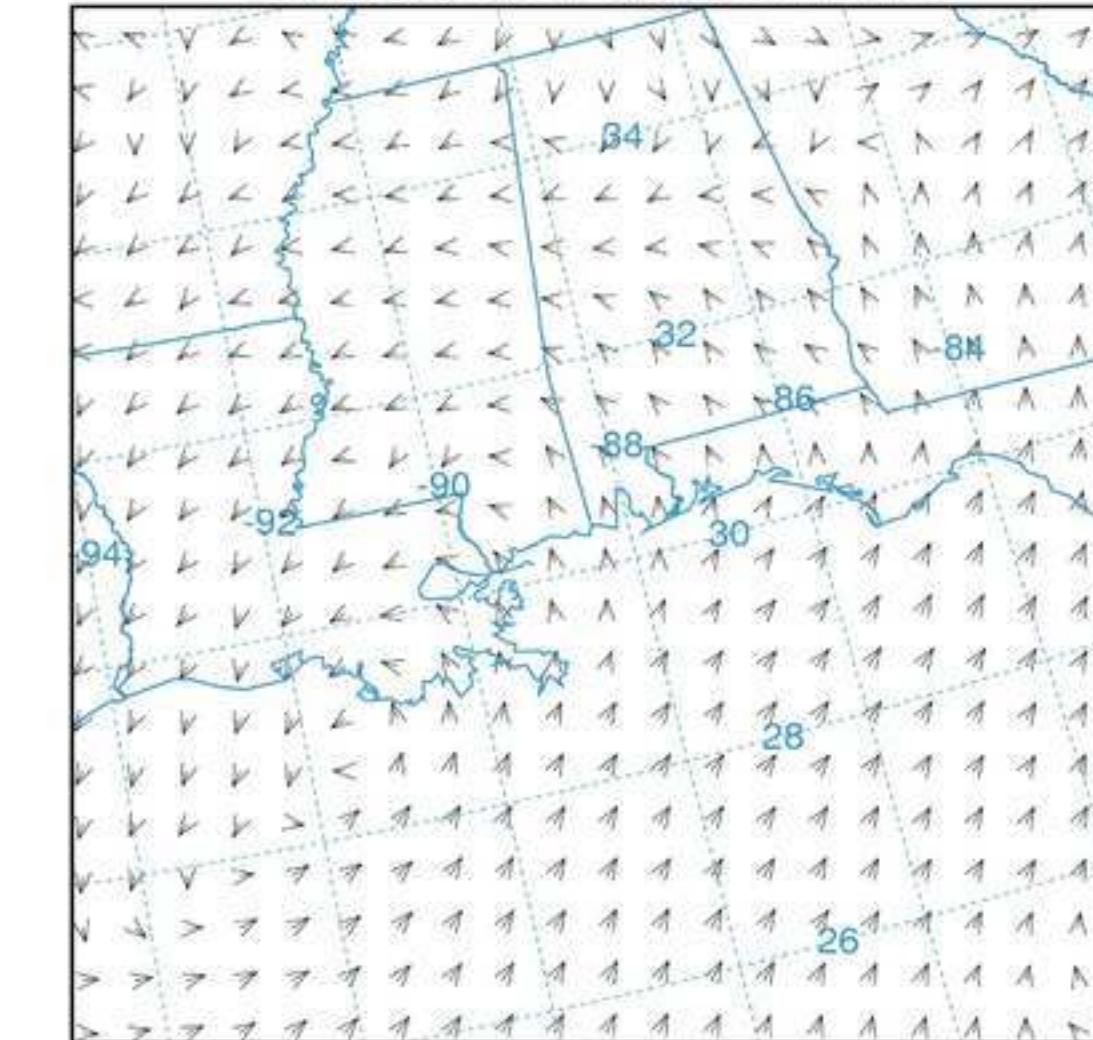


VECT ( 10) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/18

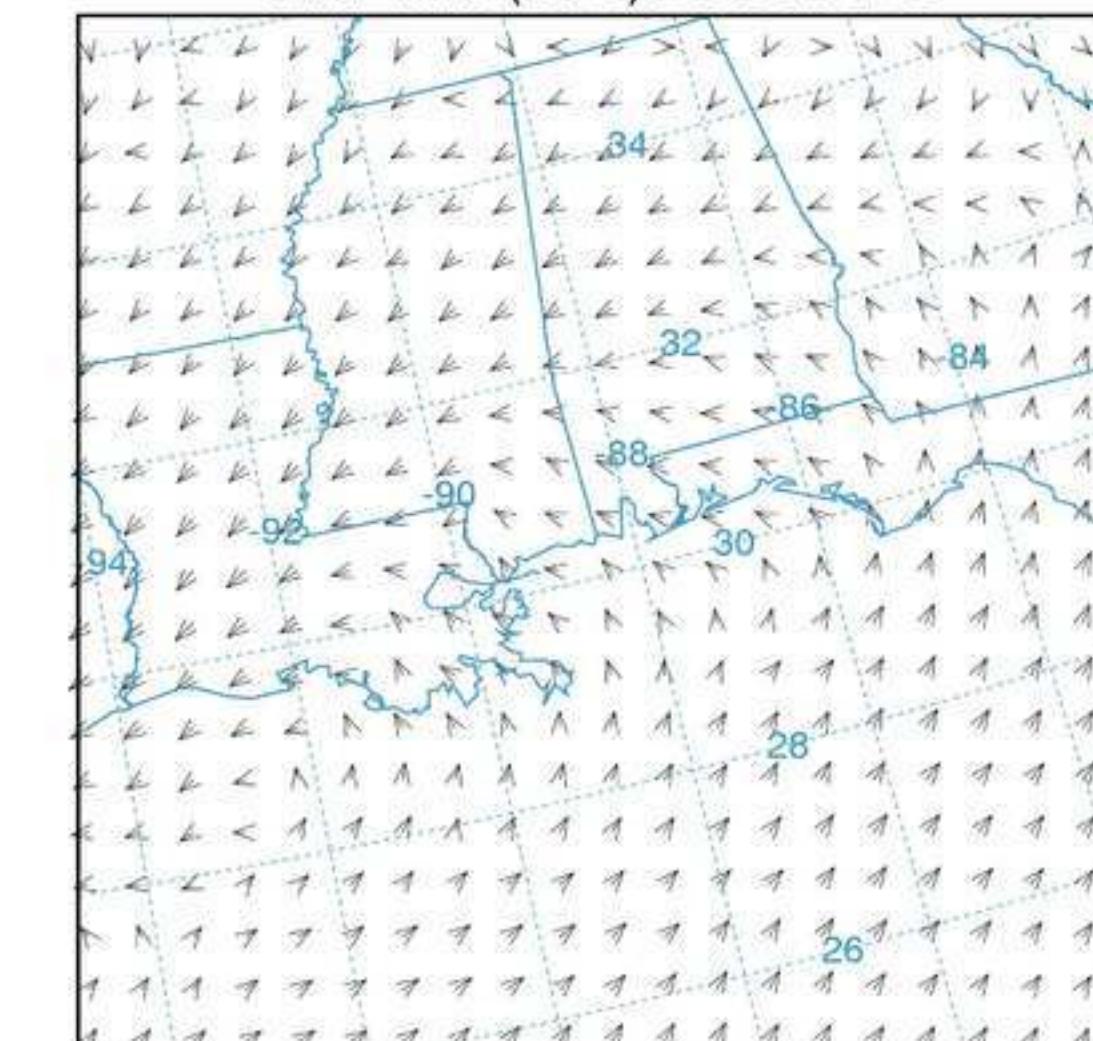


VECT ( 10) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/18

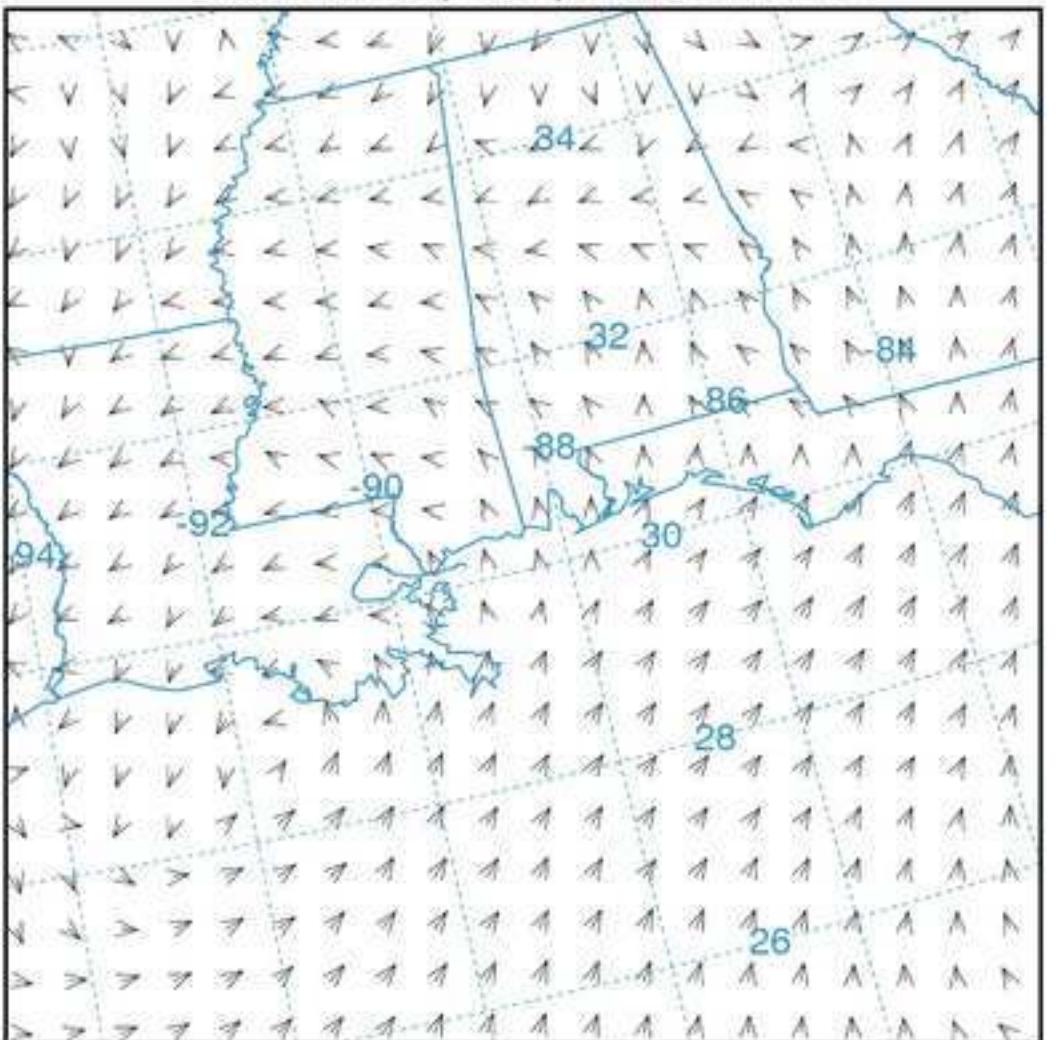


VECT ( 9) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/19

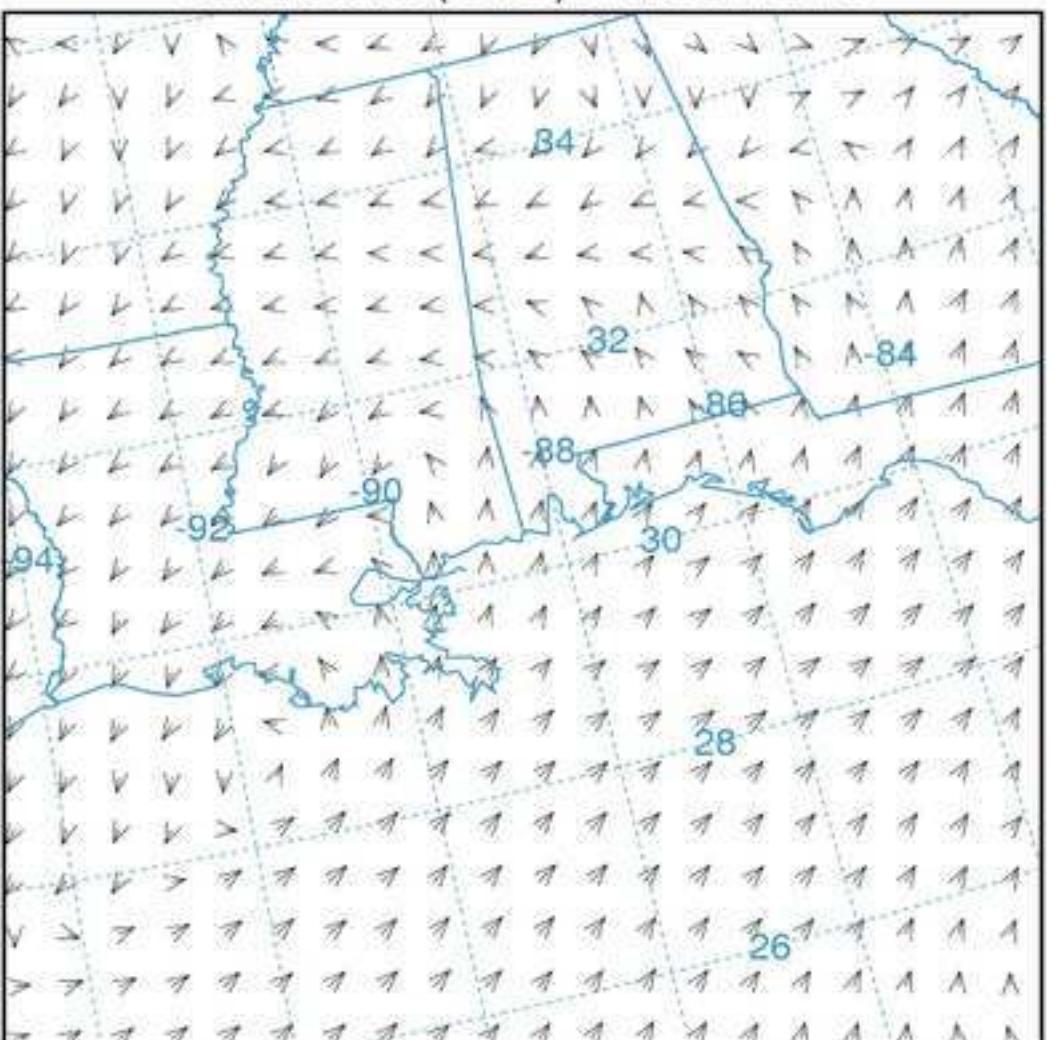


VECT ( 8 ) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/19

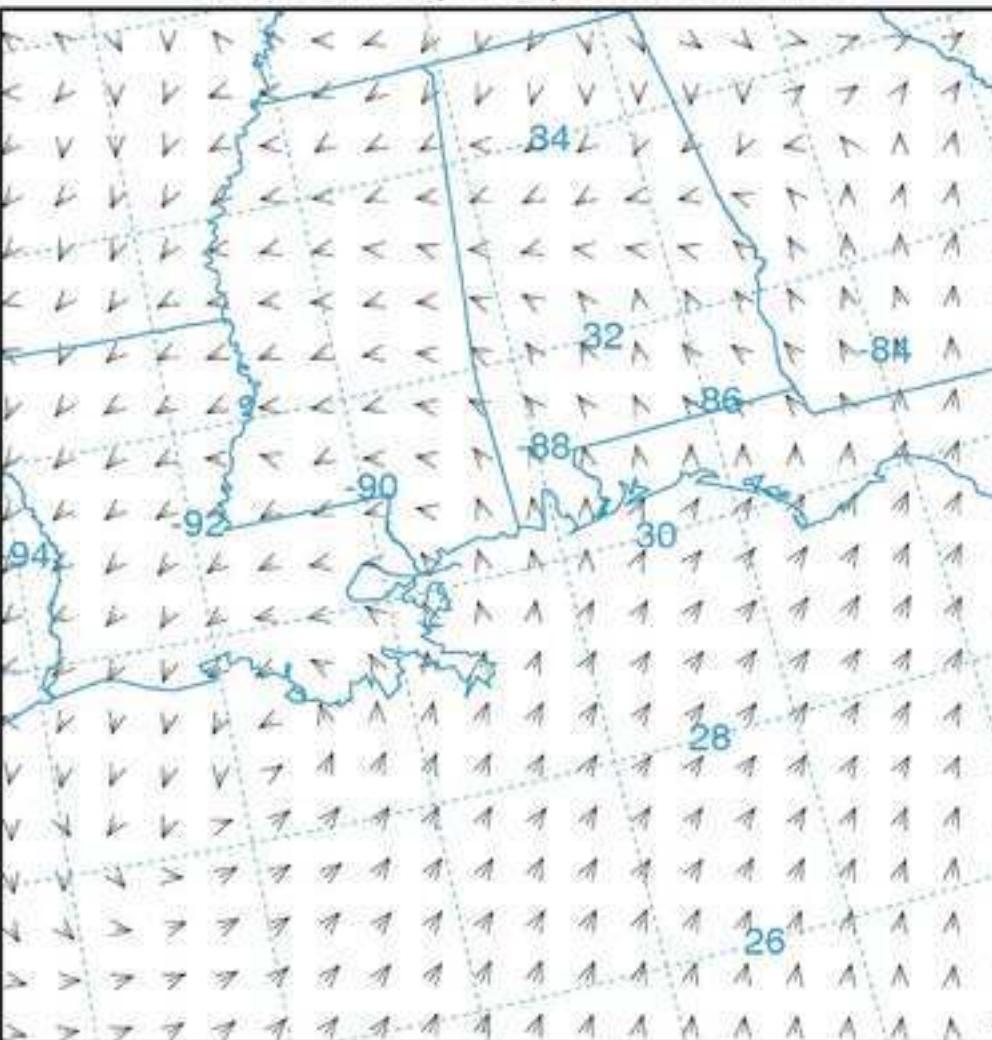


VECT ( 10 ) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/19

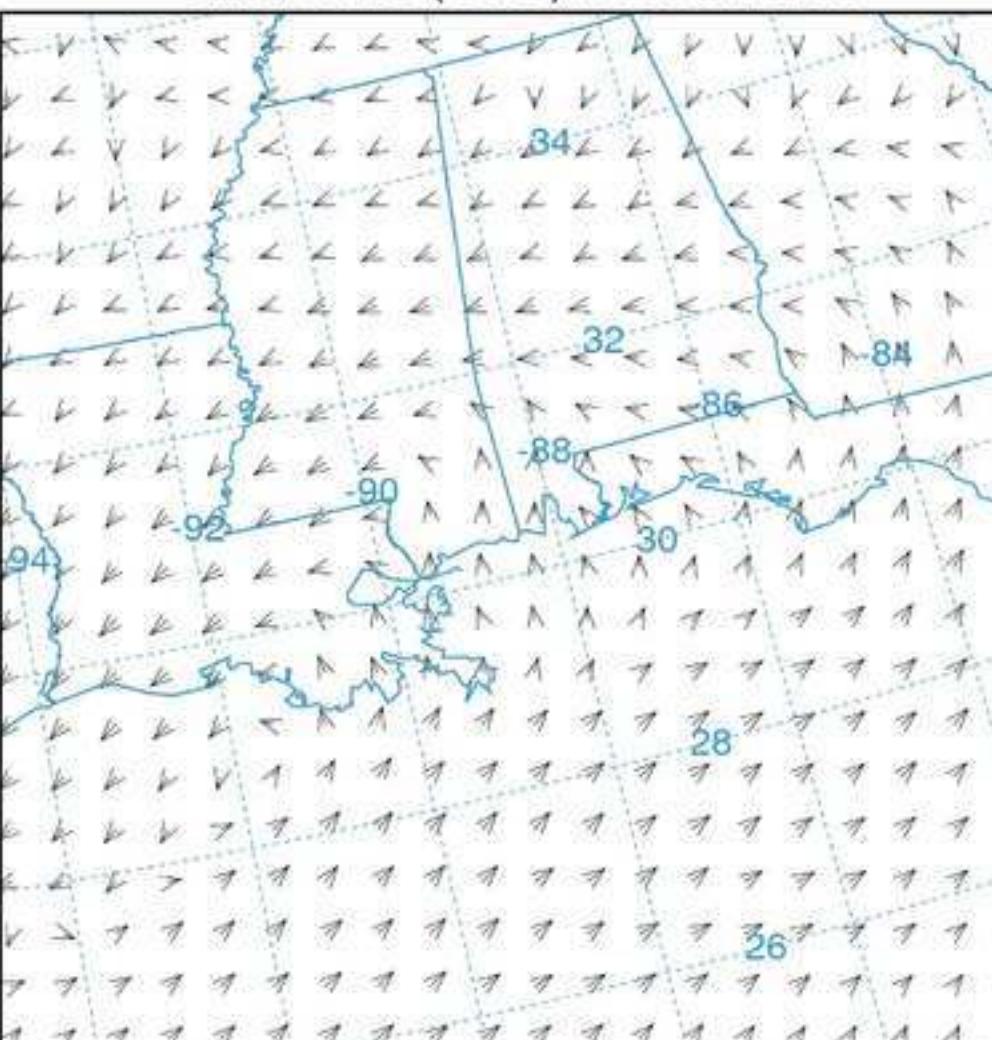


VECT ( 10 ) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/19

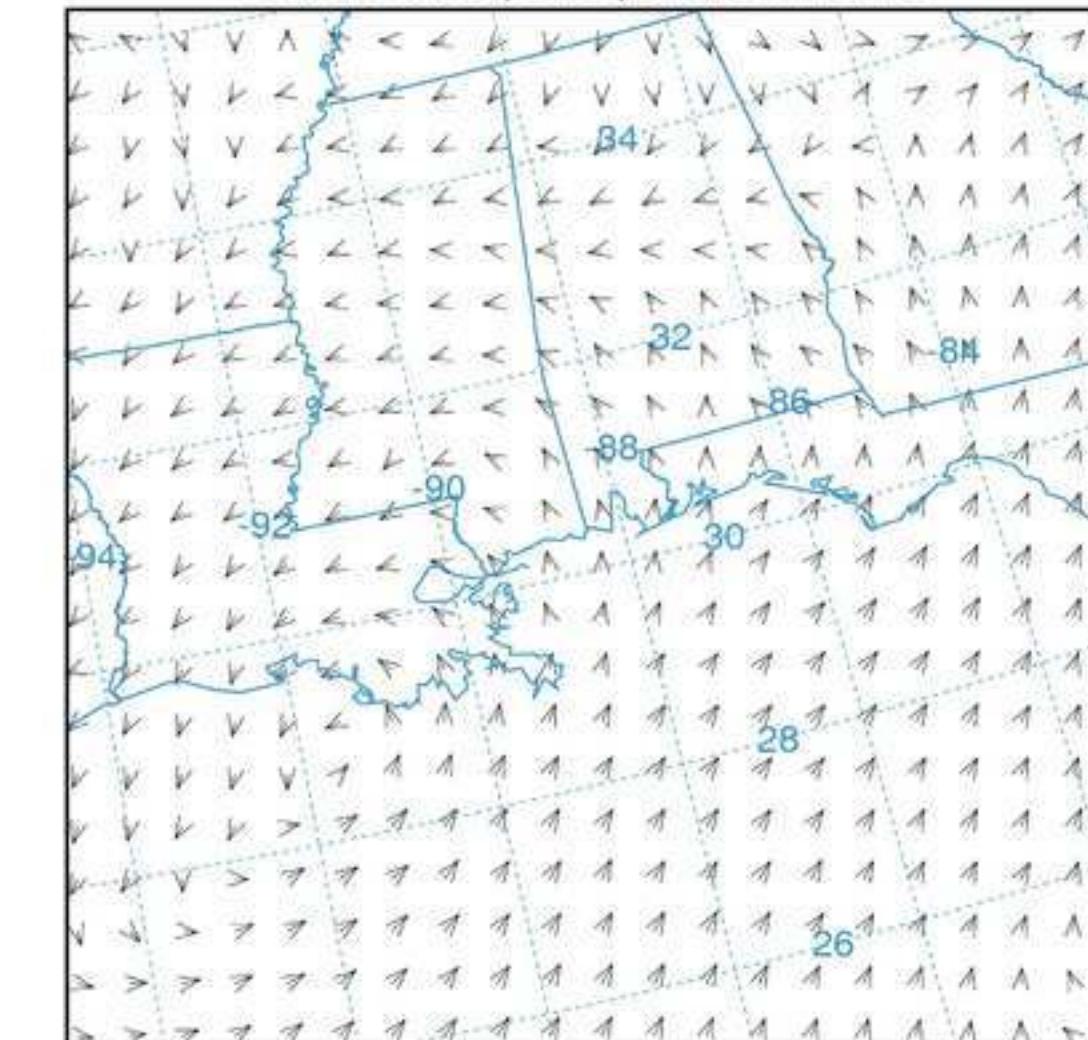


VECT ( 10 ) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/19

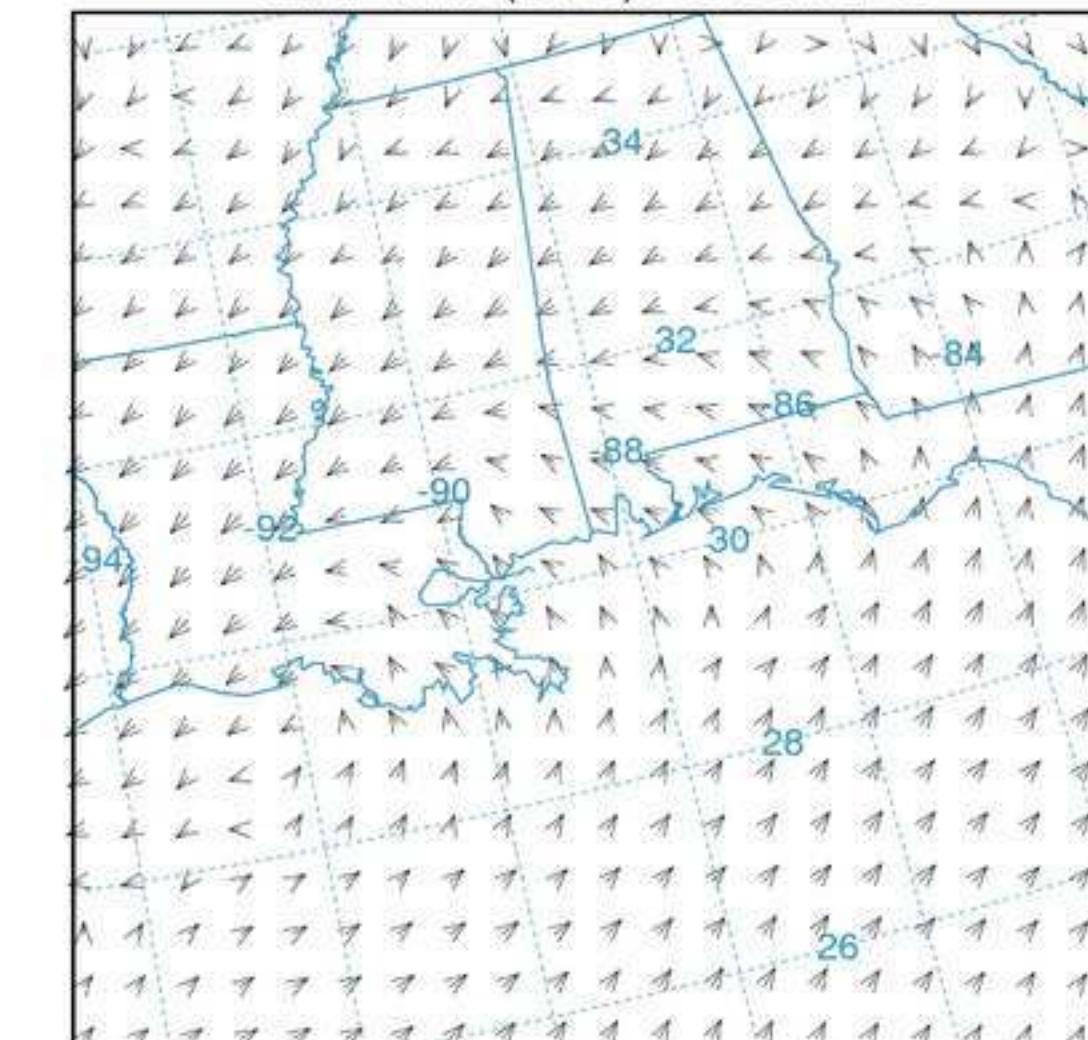


VECT ( 10 ) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/19

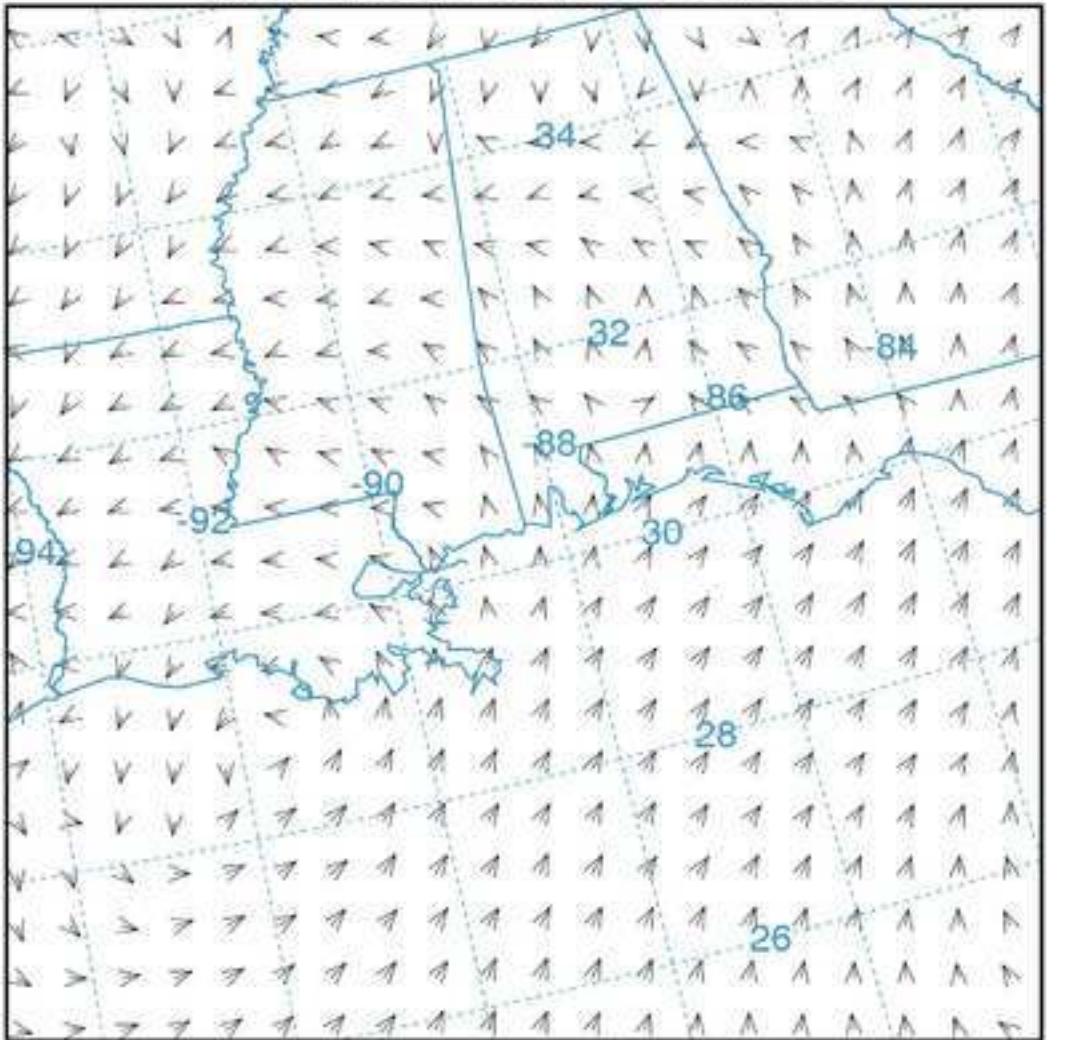


VECT ( 9 ) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/20

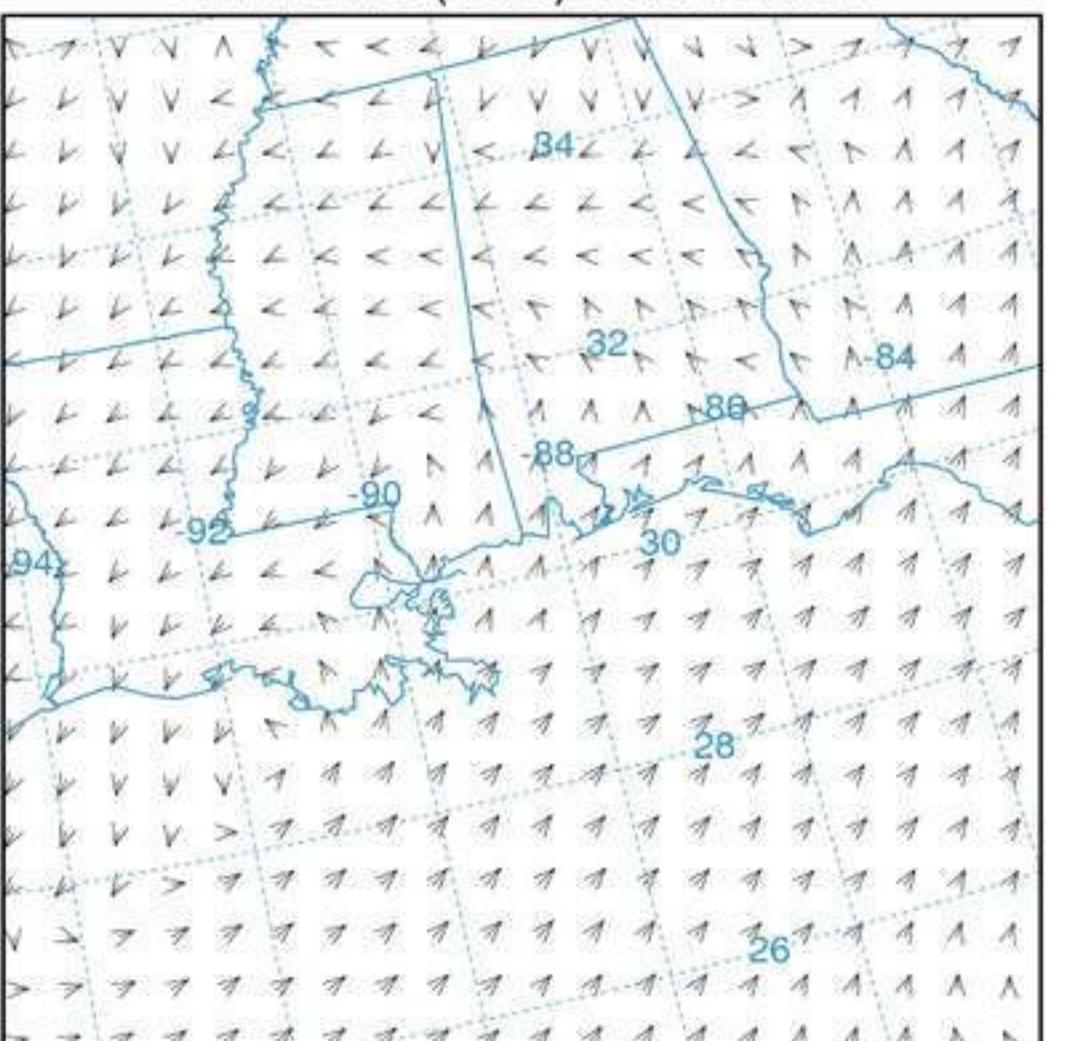


VECT ( 8 ) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/20



VECT ( 10 ) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/20

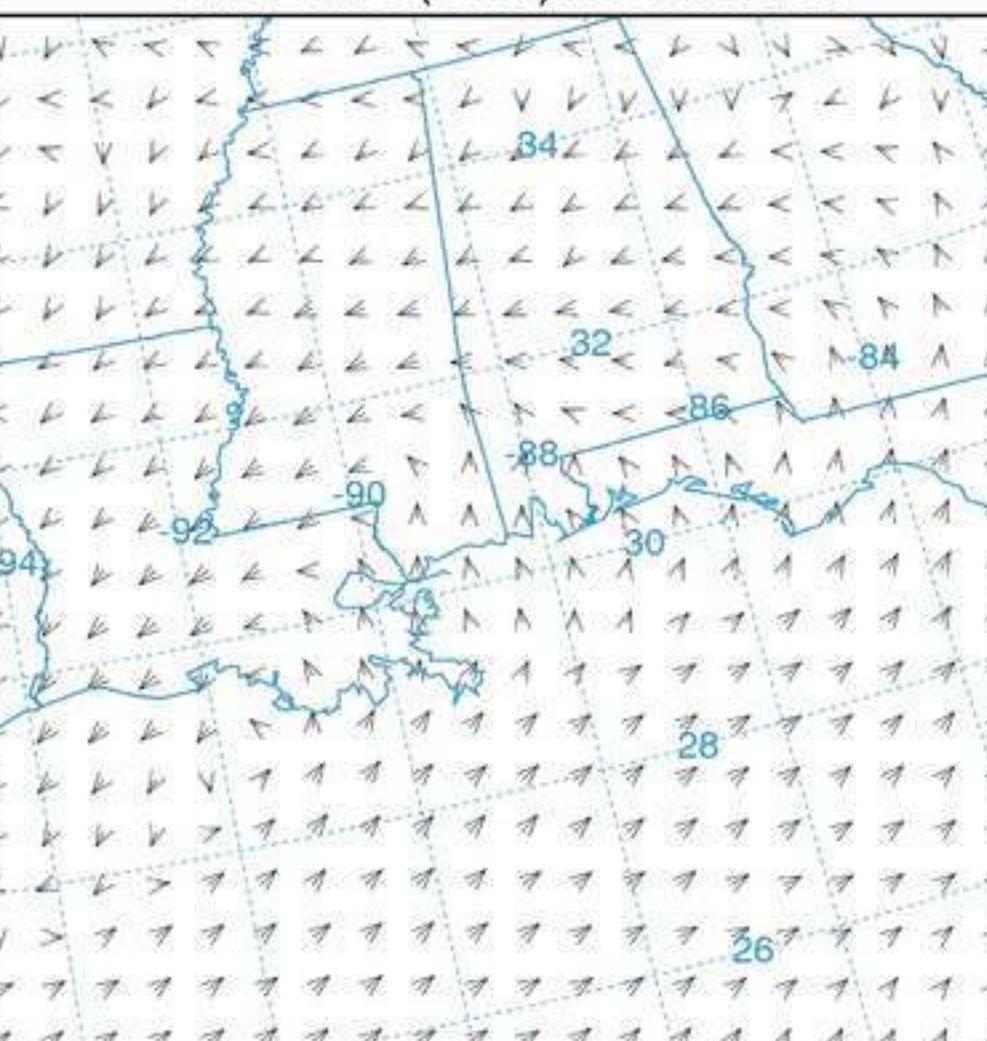


VECT ( 10 ) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/20

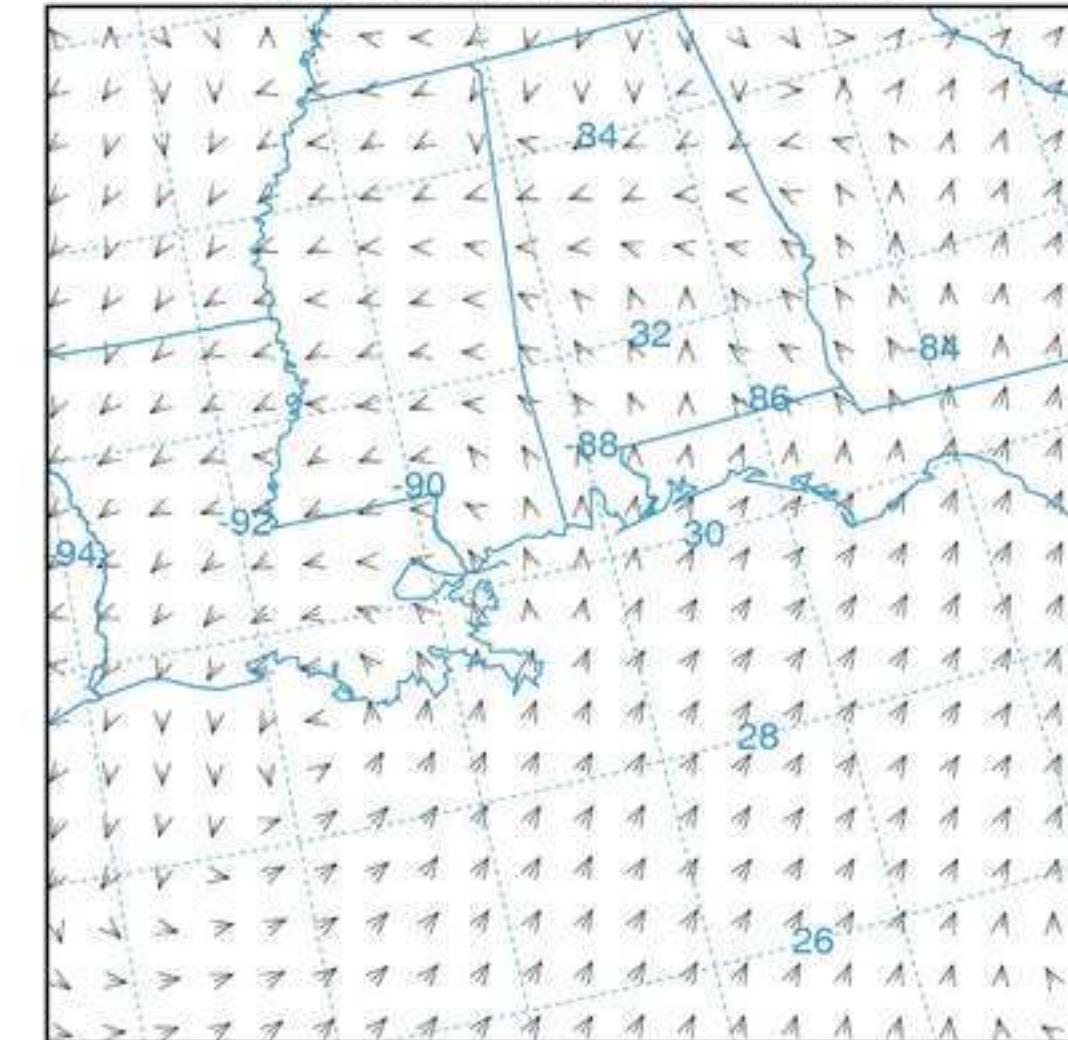


VECT ( 10 ) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/20

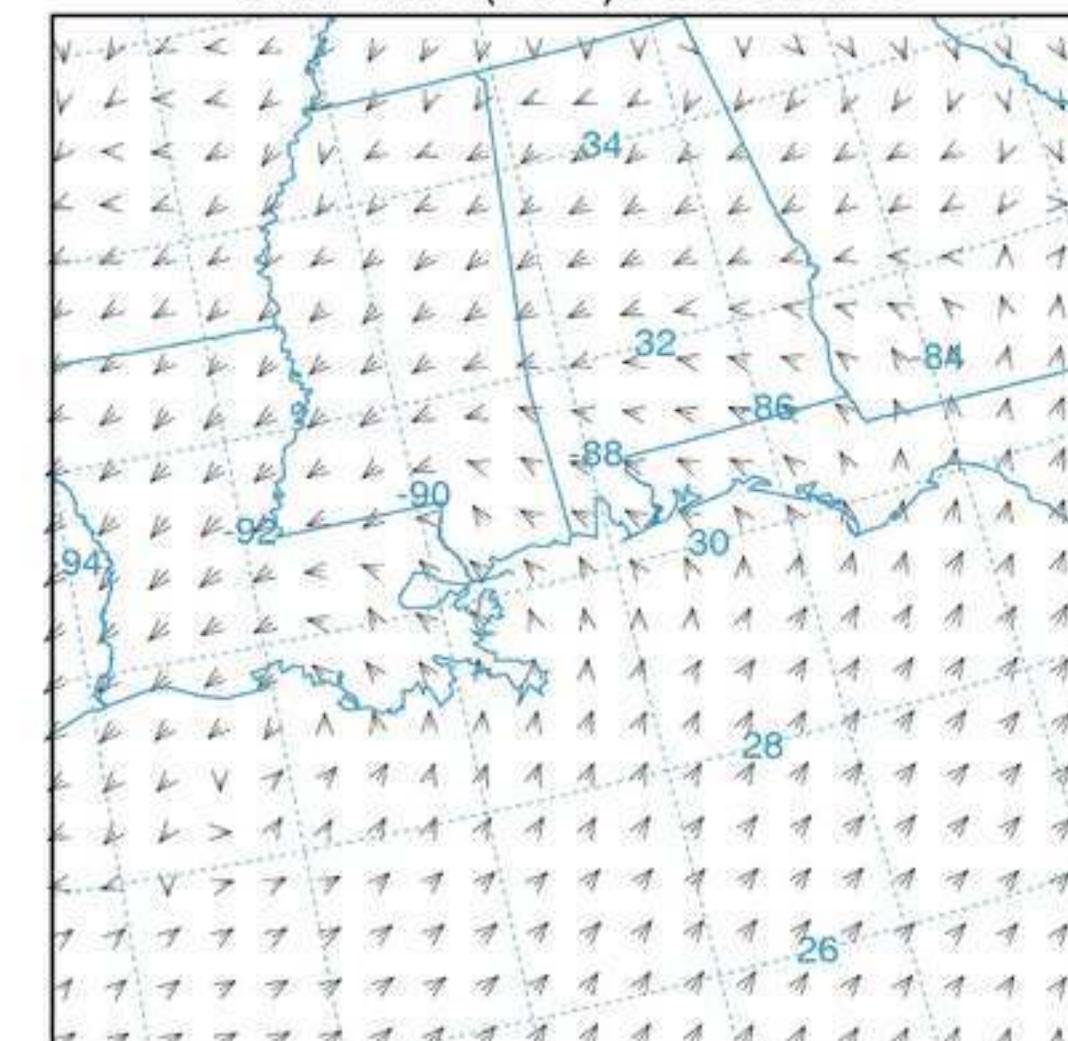


VECT ( 10 ) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/20

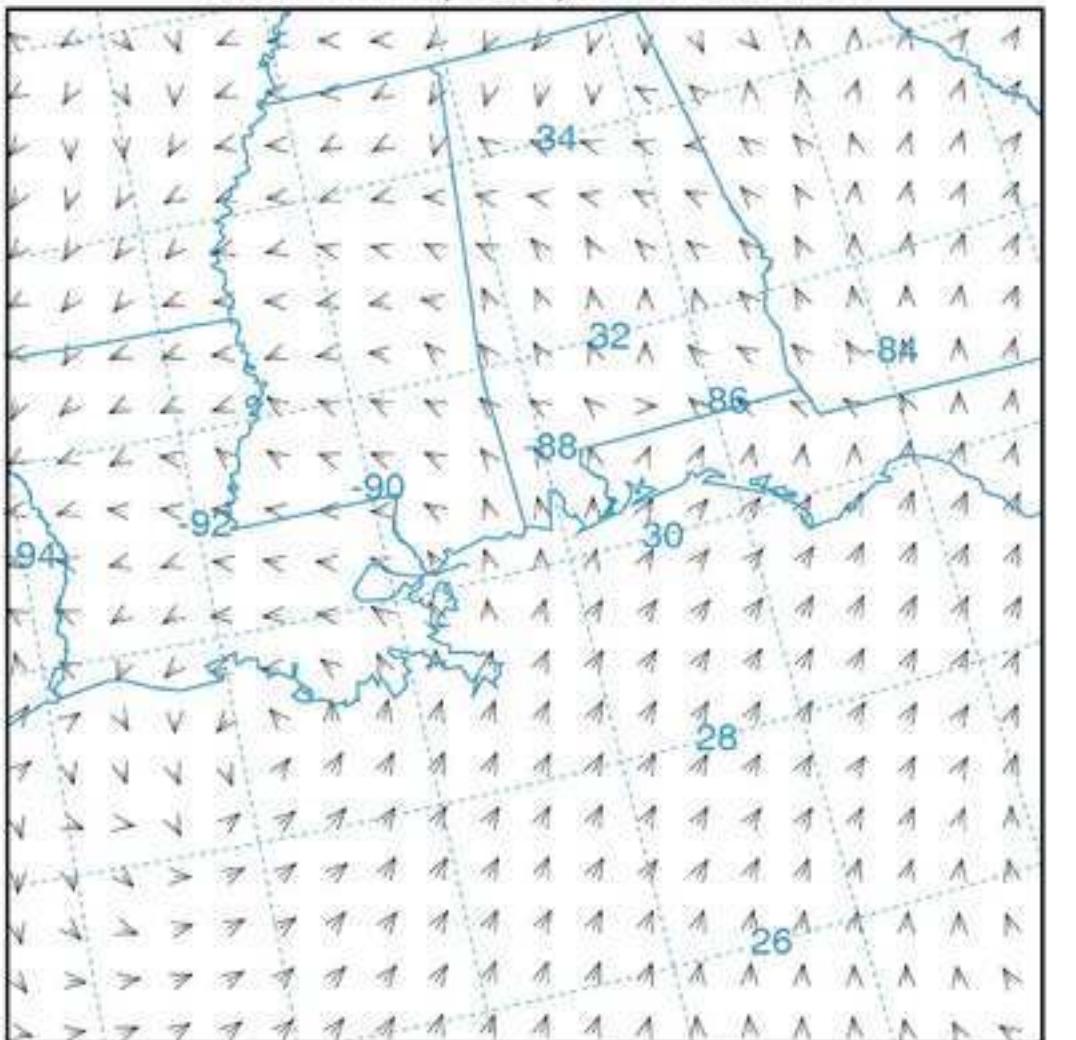


VECT ( 9 ) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/21

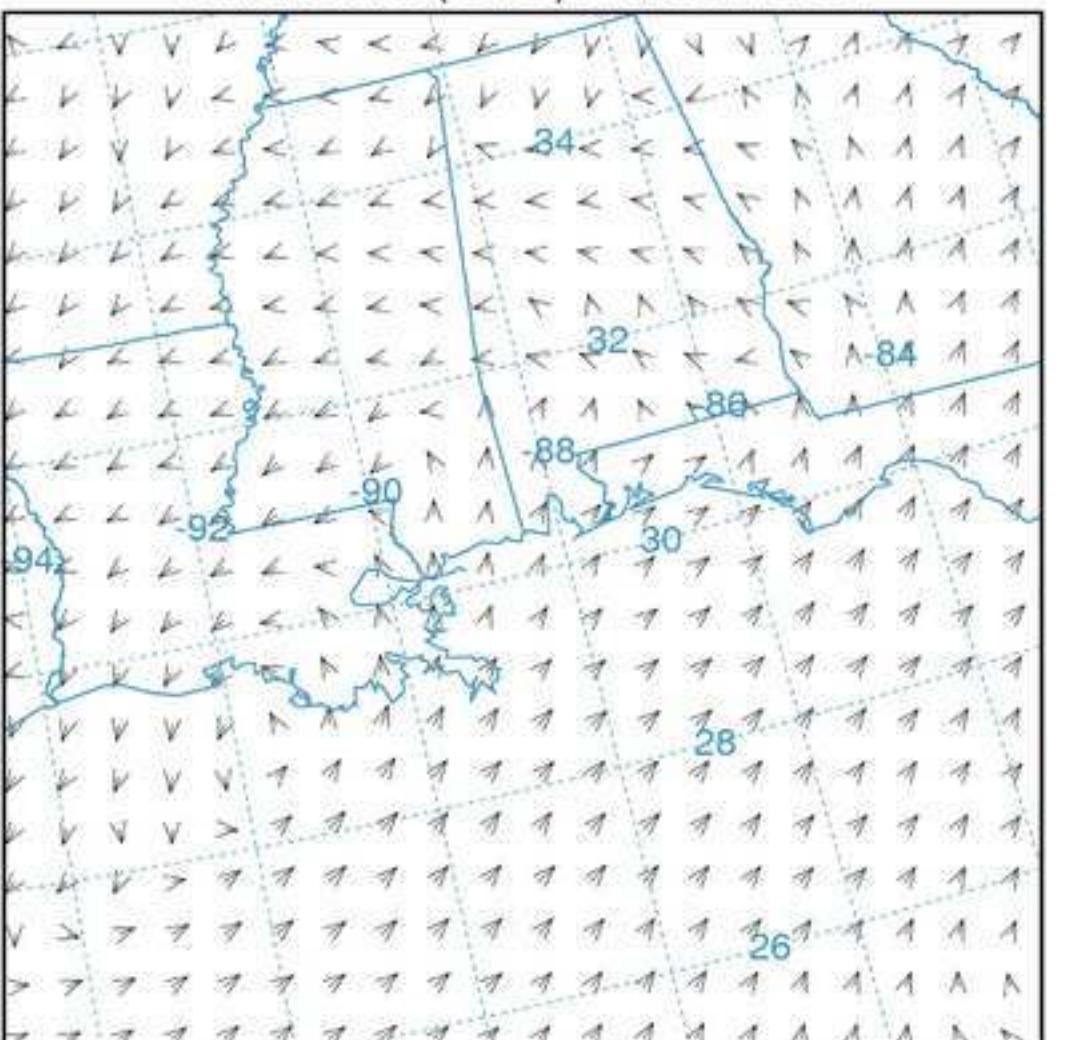


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/21

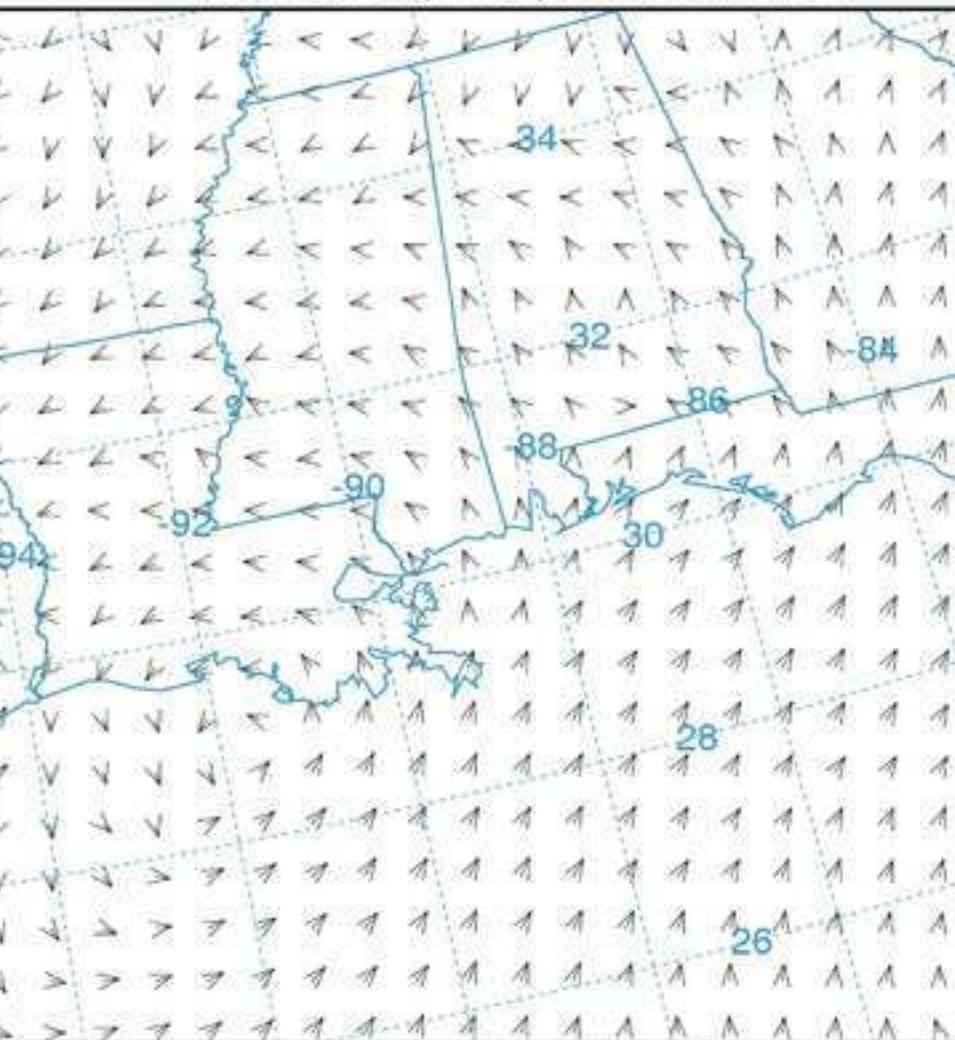


VECT ( 11) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/21



VECT ( 10) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/21

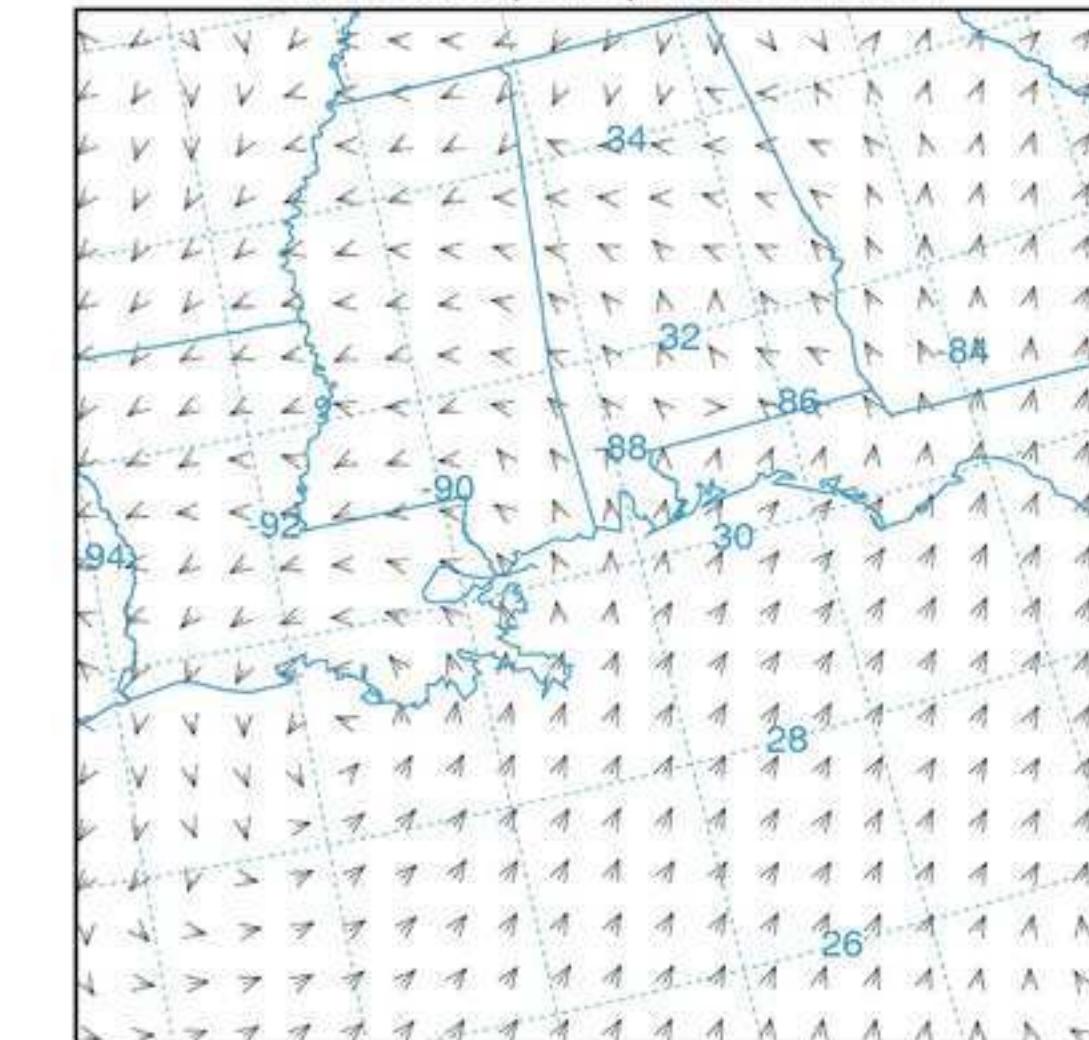


VECT ( 10) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/21

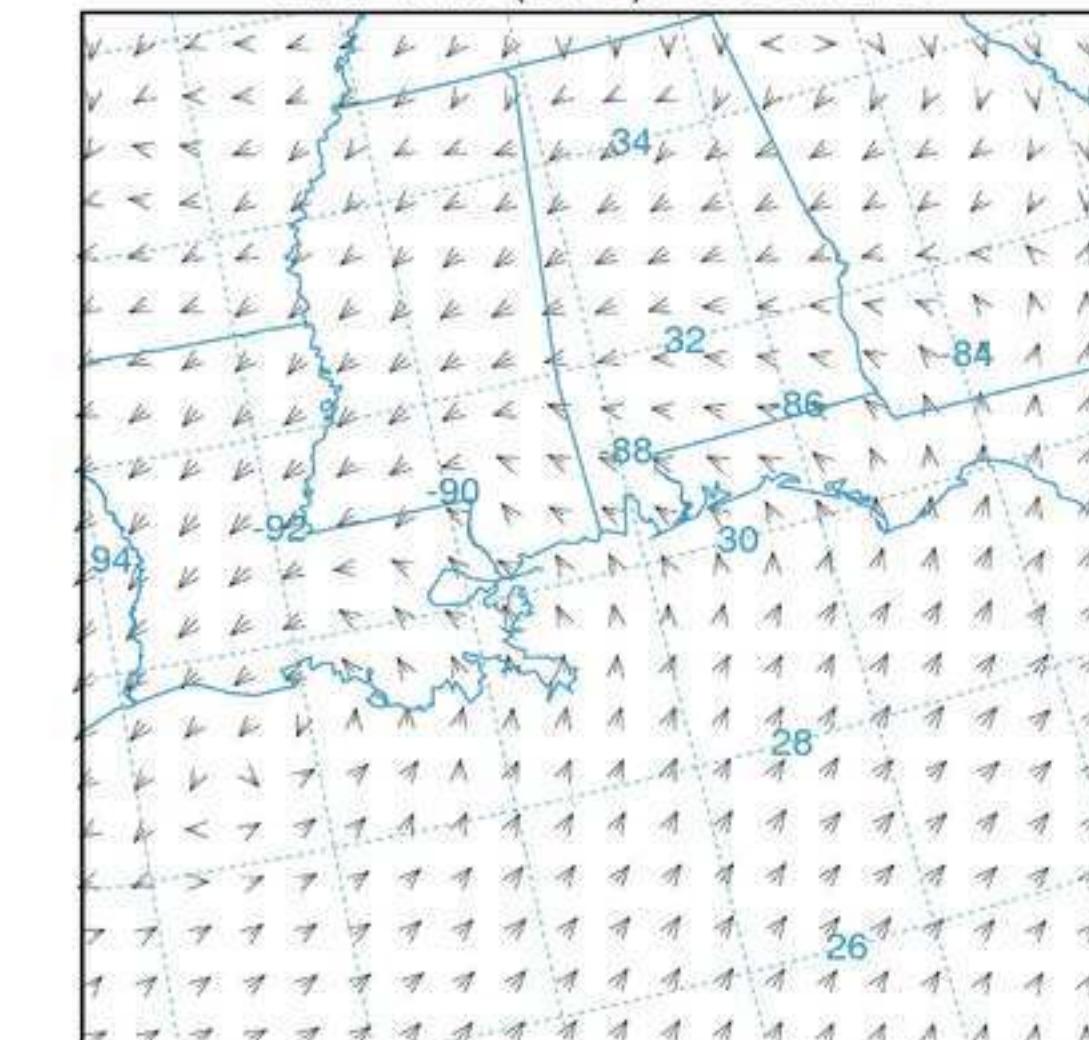


VECT ( 10) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/21

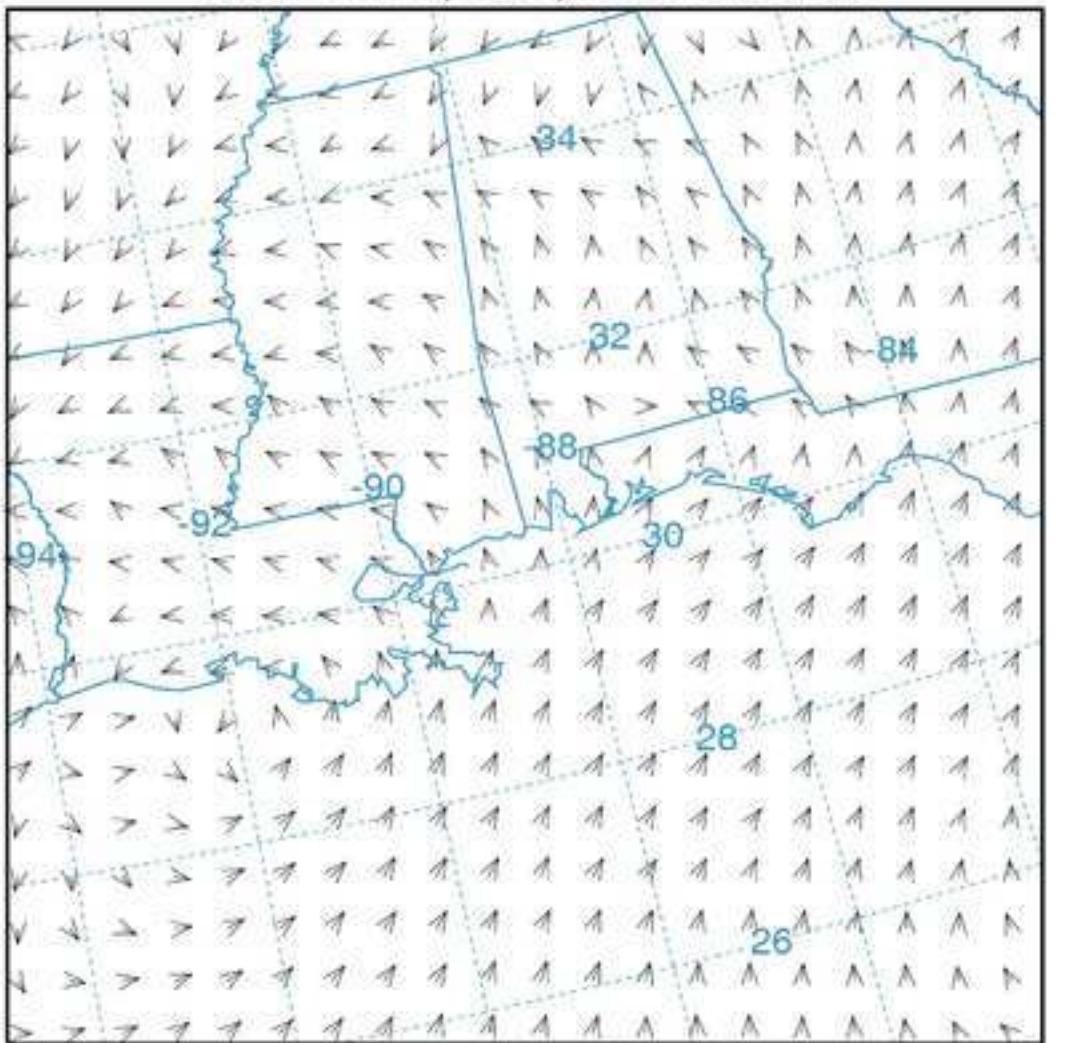


VECT ( 8) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/22

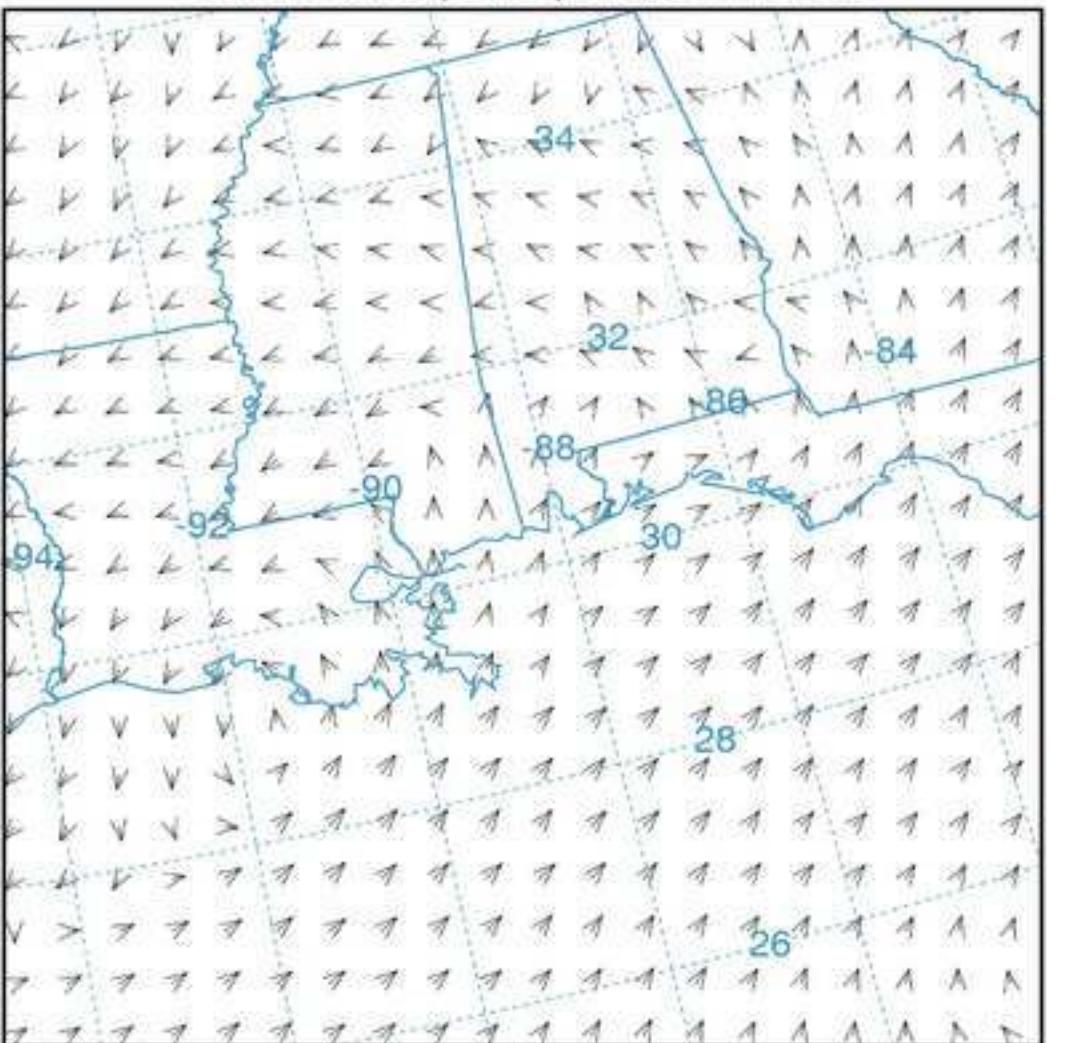


VECT ( 9) AT HEIGHT: 1.000

Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/22

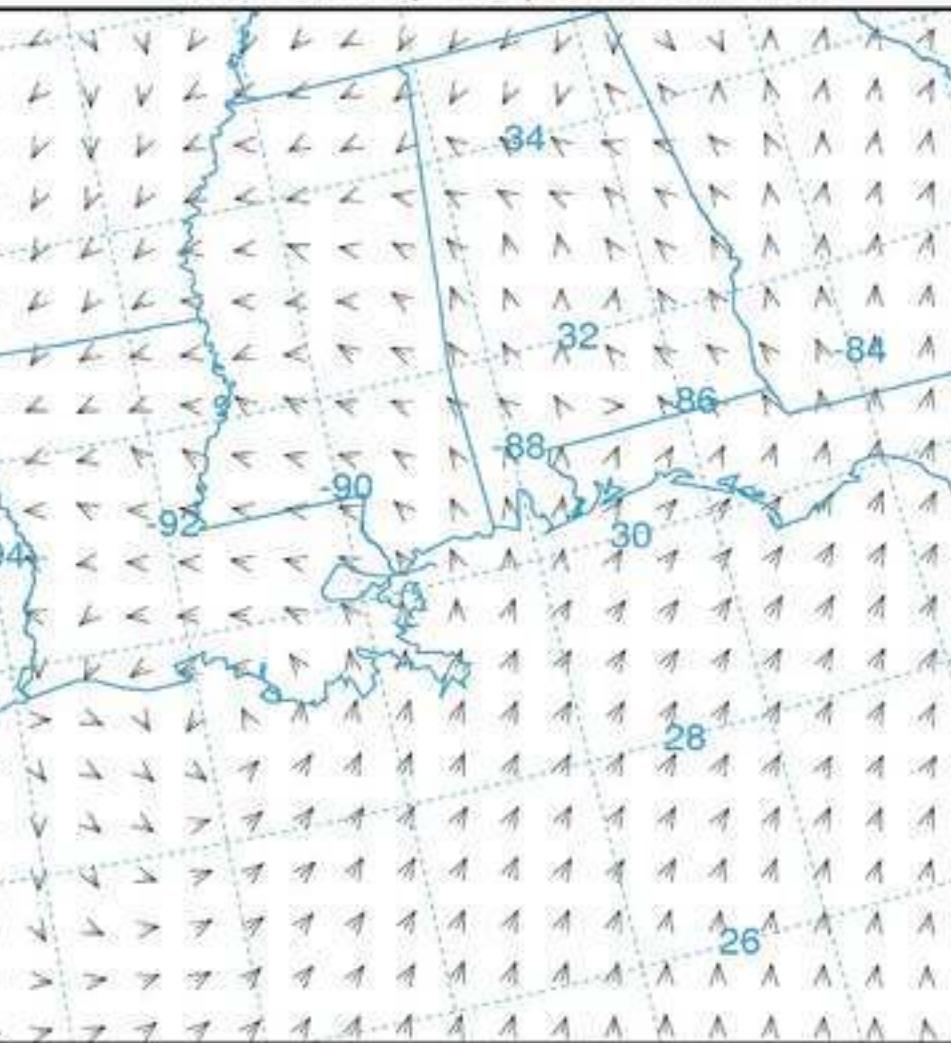


VECT ( 11) AT HEIGHT: 0.904

Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/22

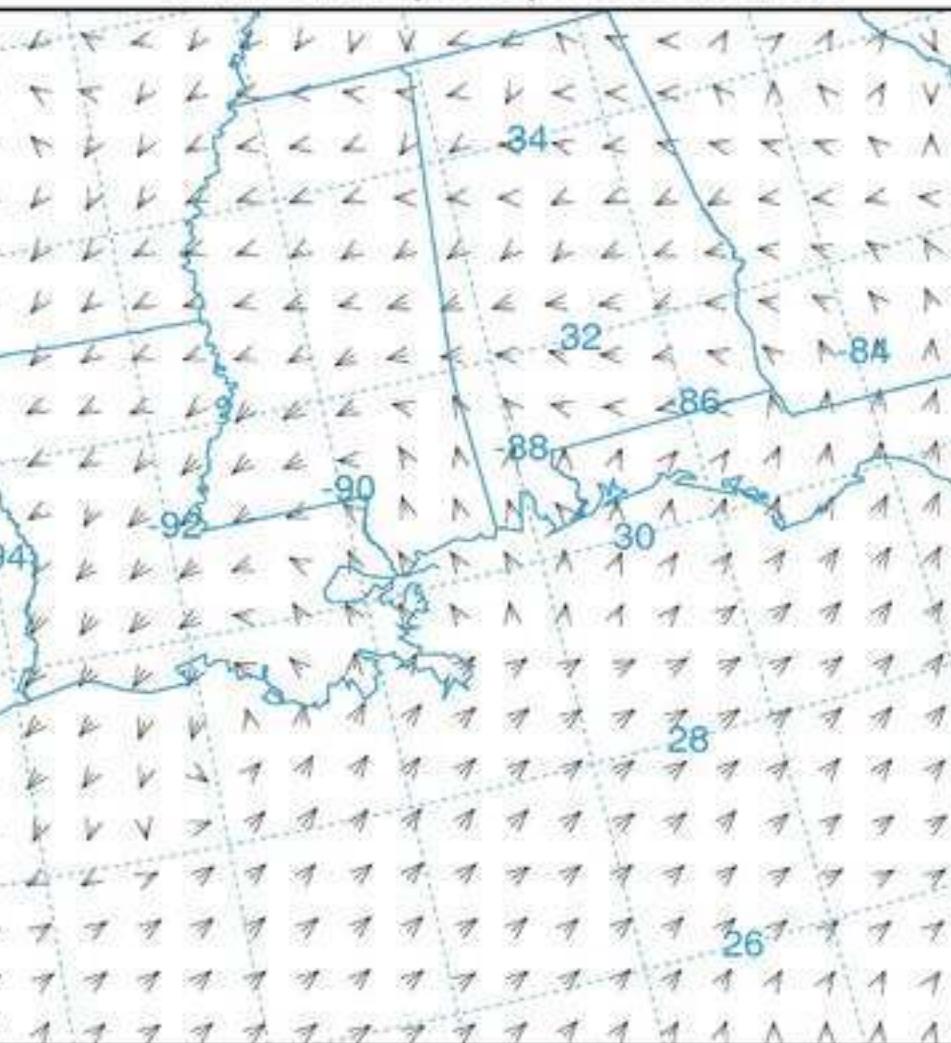


VECT ( 10) AT HEIGHT: 0.963

Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/22

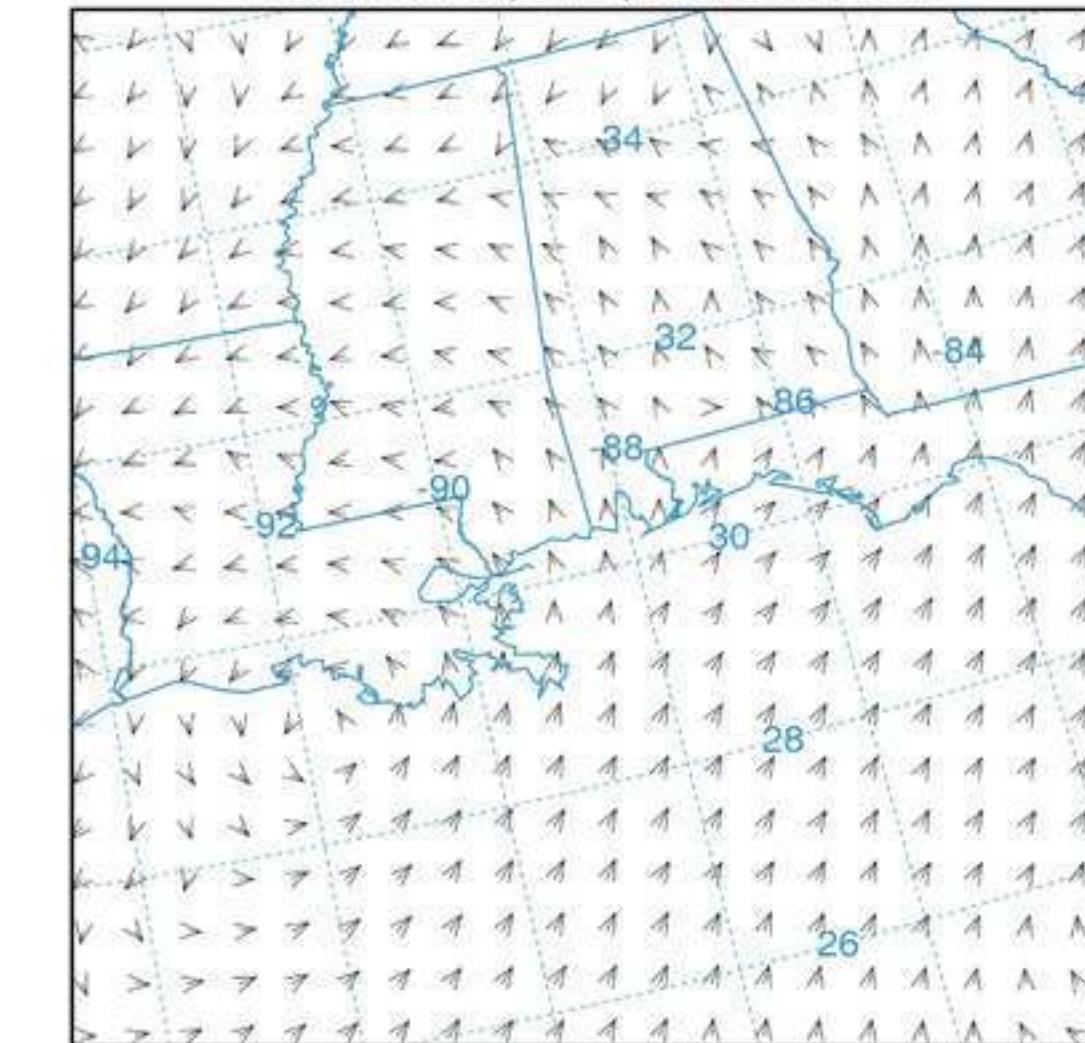


VECT ( 10) AT HEIGHT: 0.826

Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/22

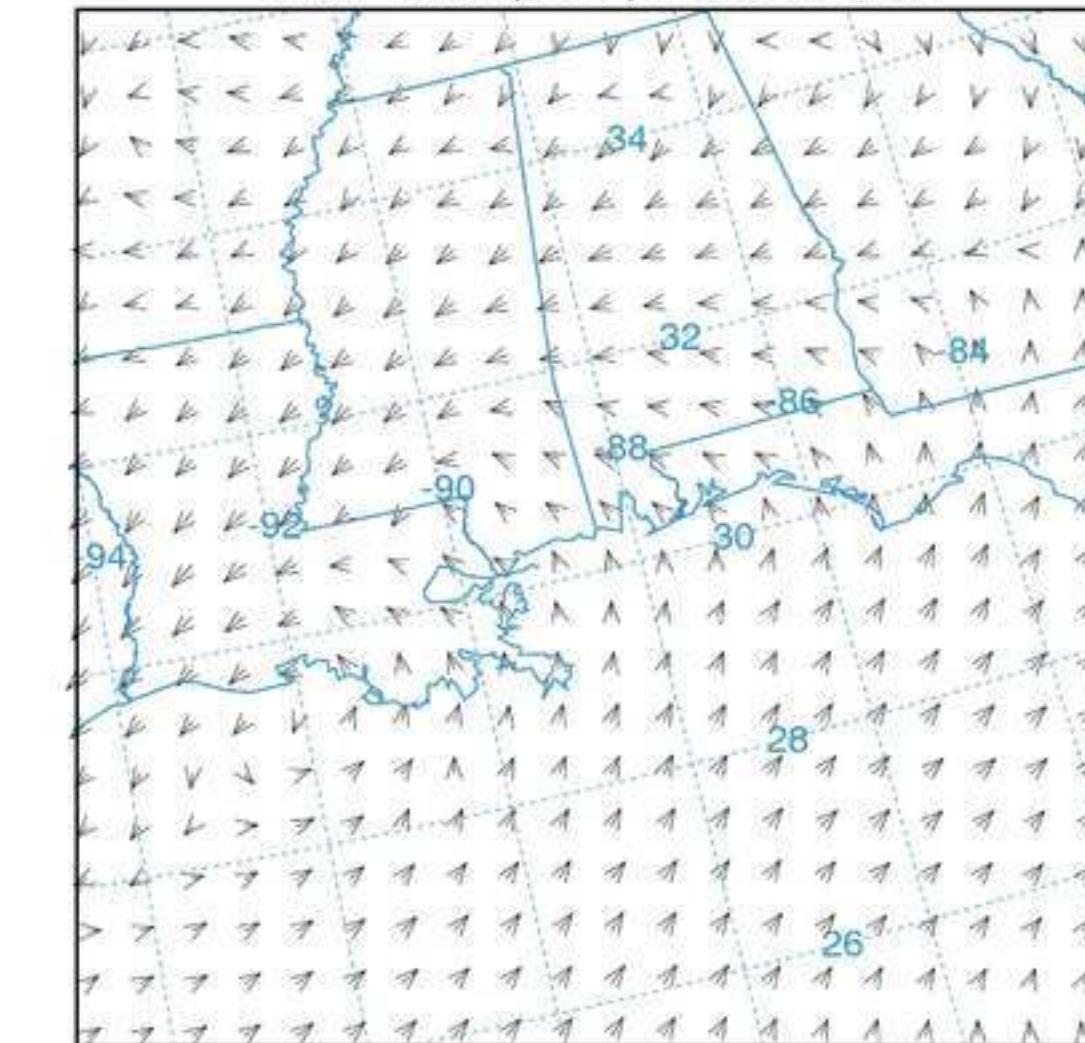


VECT ( 10) AT HEIGHT: 0.940

Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/22

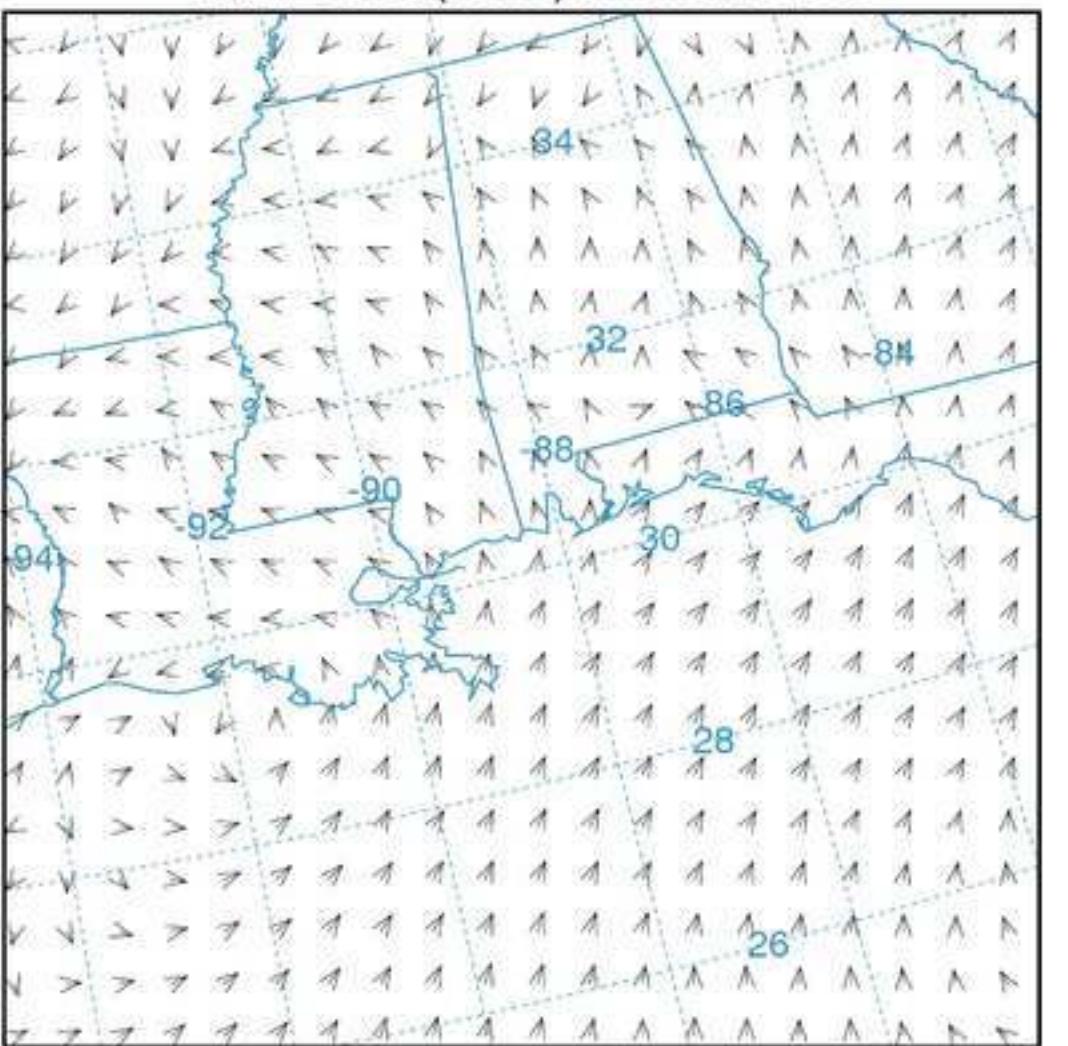


VECT ( 8) AT HEIGHT: 0.718

Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/23

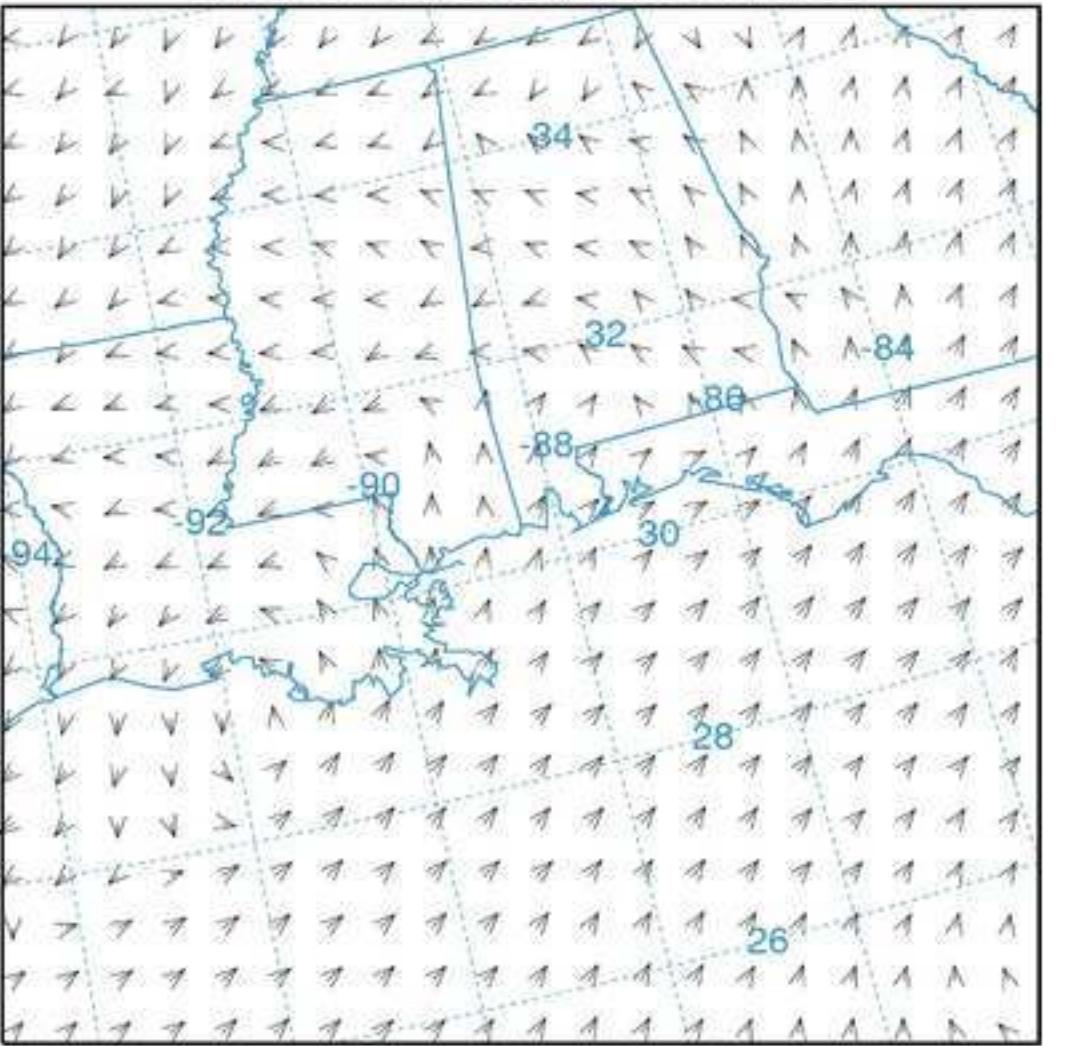


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/23

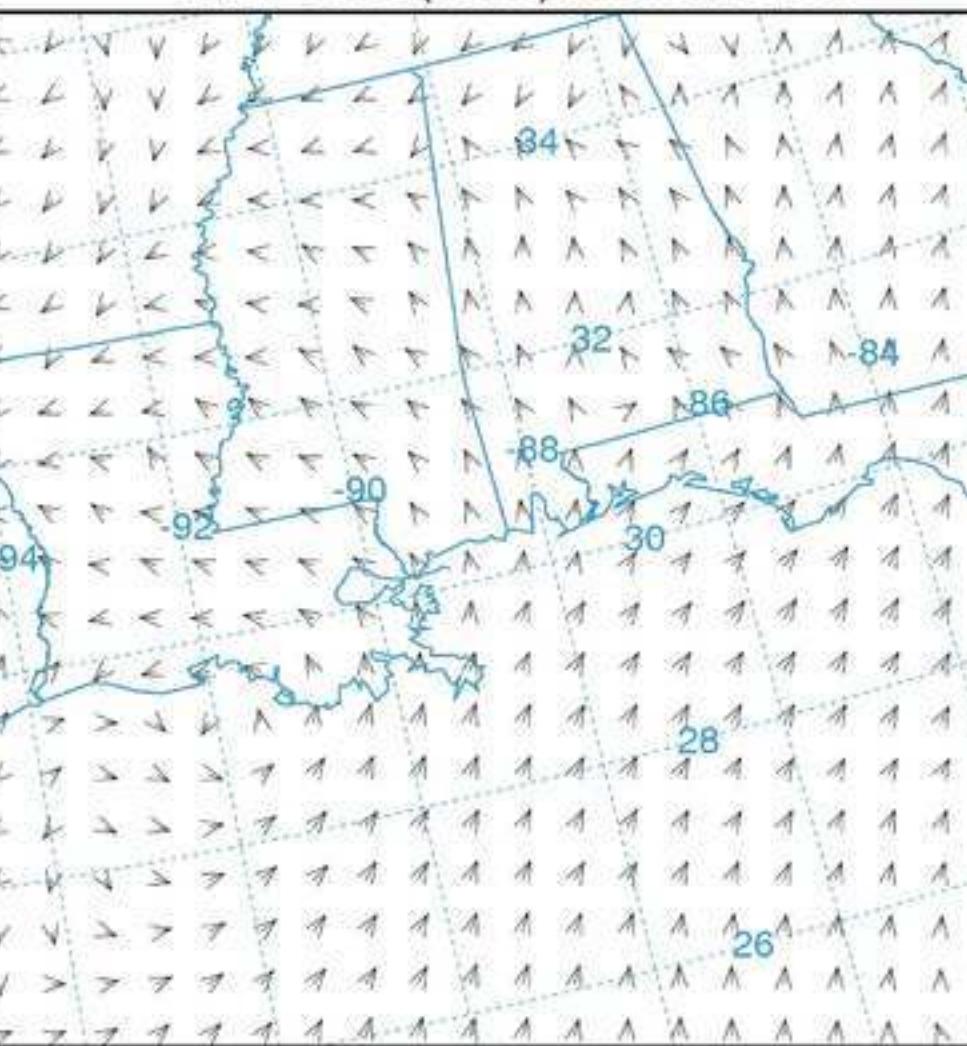


VECT ( 11) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/23



VECT ( 10) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/23

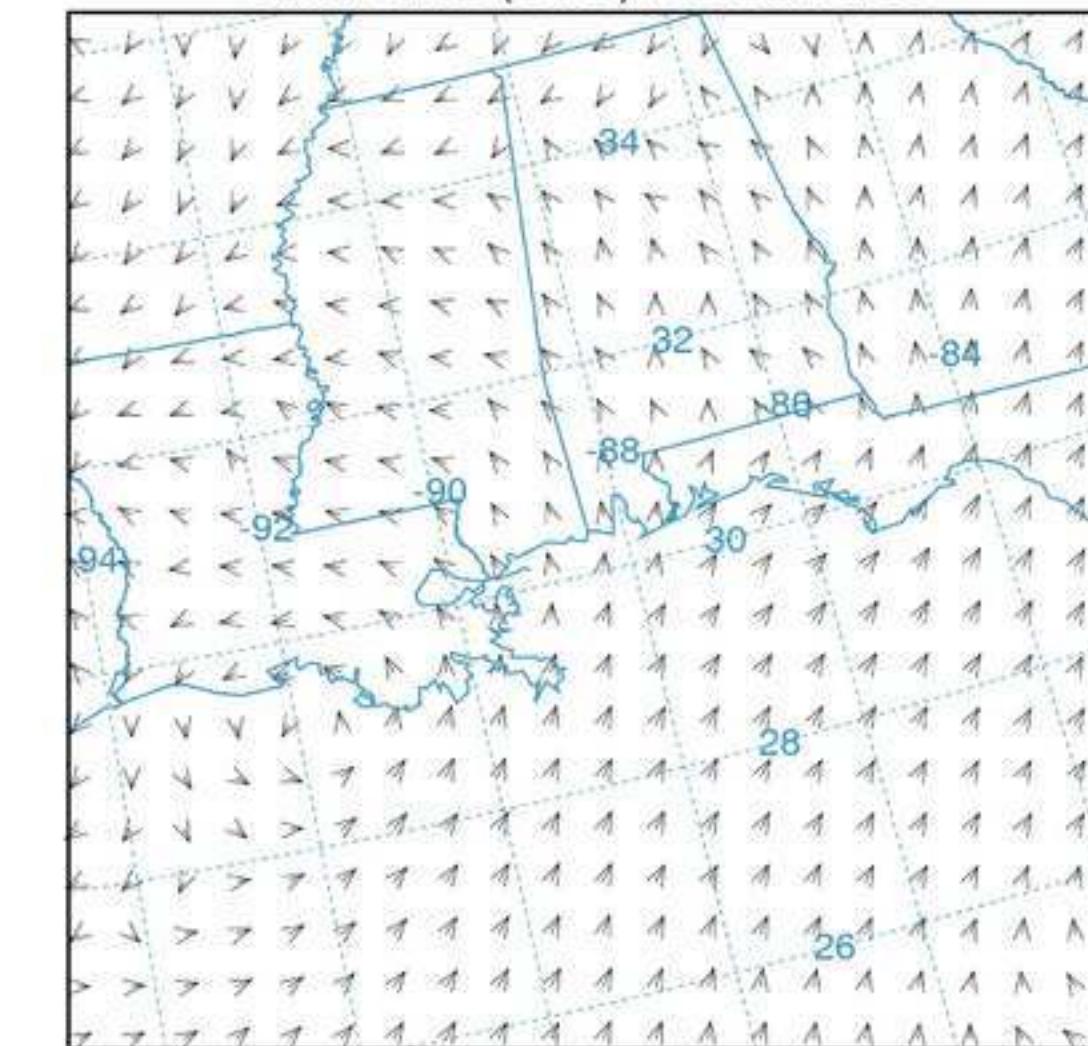


VECT ( 10) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/23

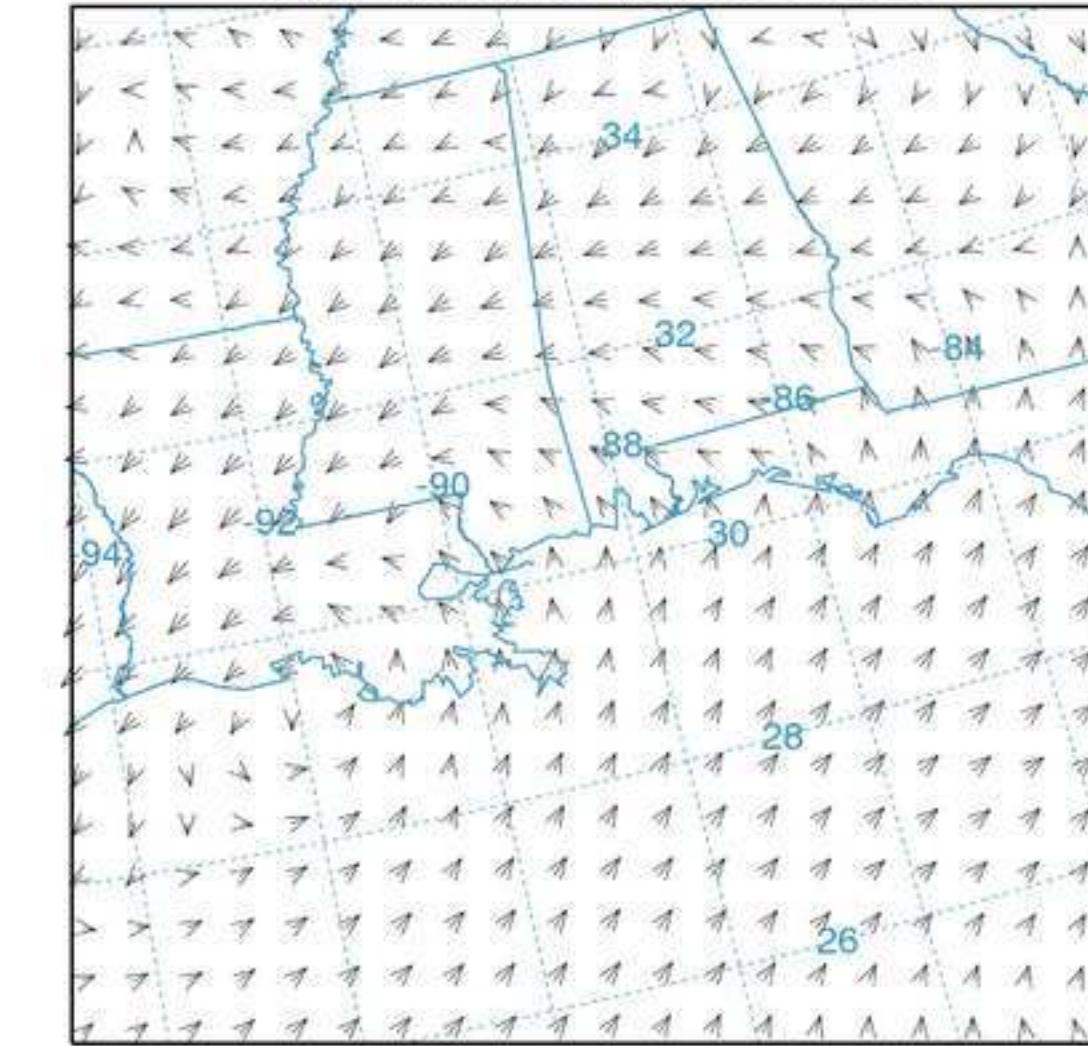


VECT ( 11) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/12/23

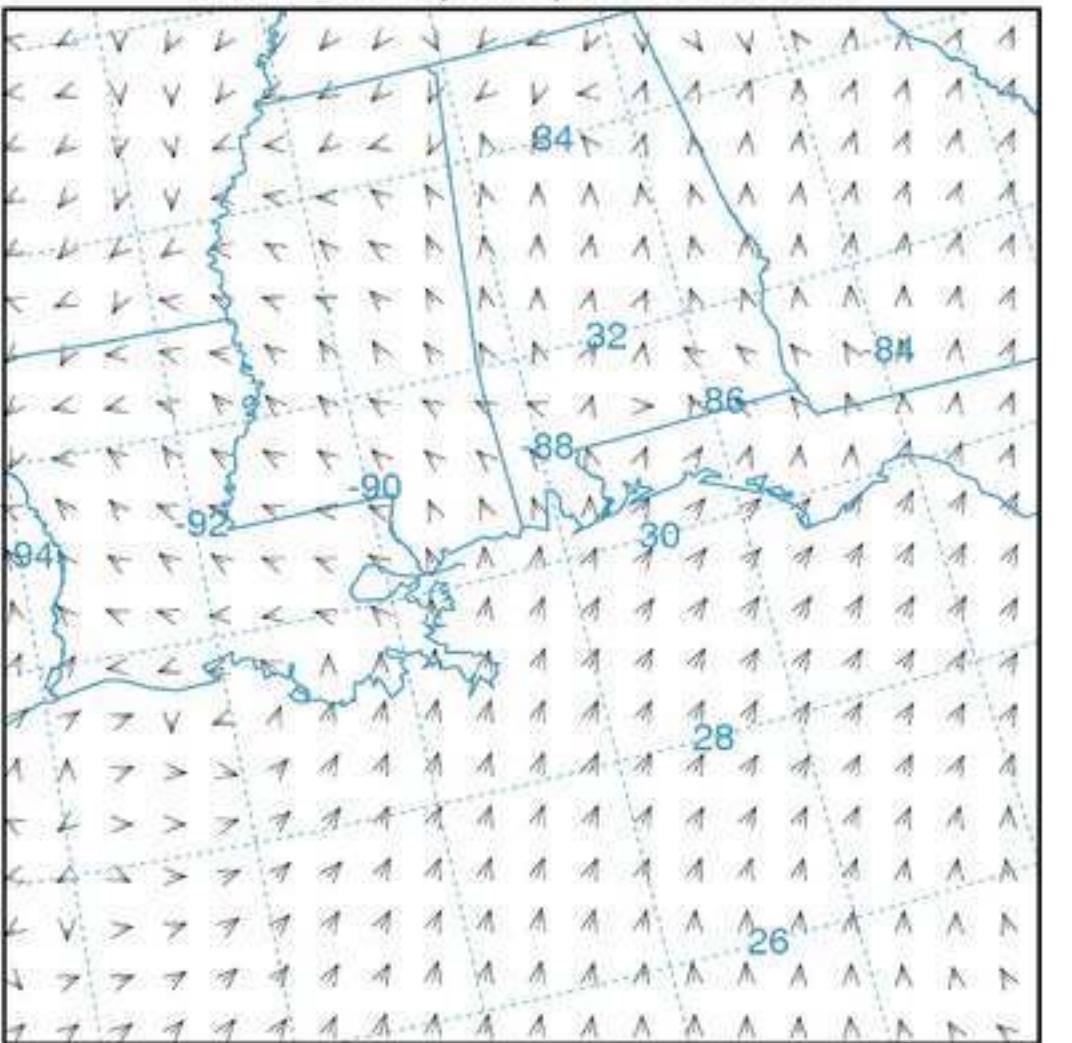


VECT ( 8) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/00

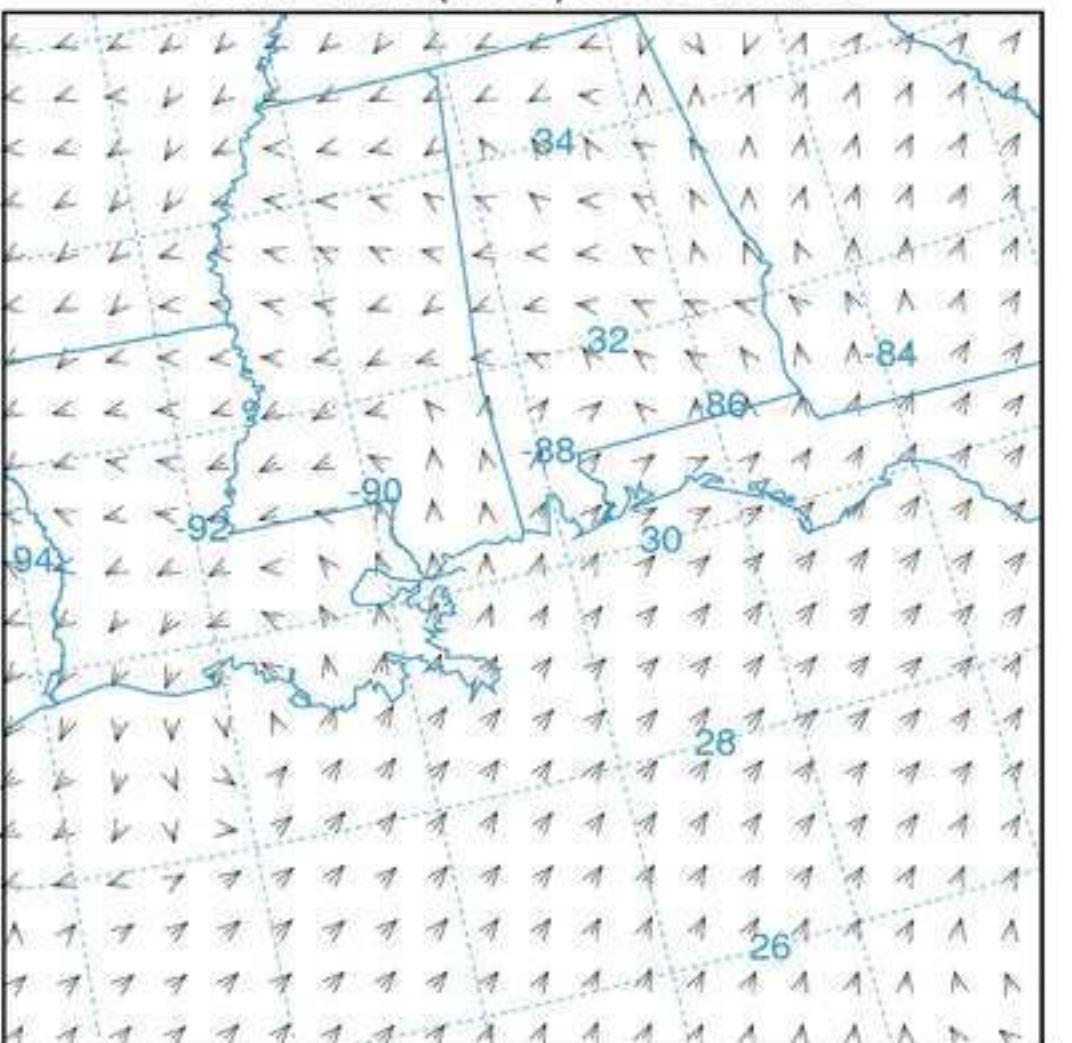


VECT ( 9) AT HEIGHT: 1.000

**Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/00

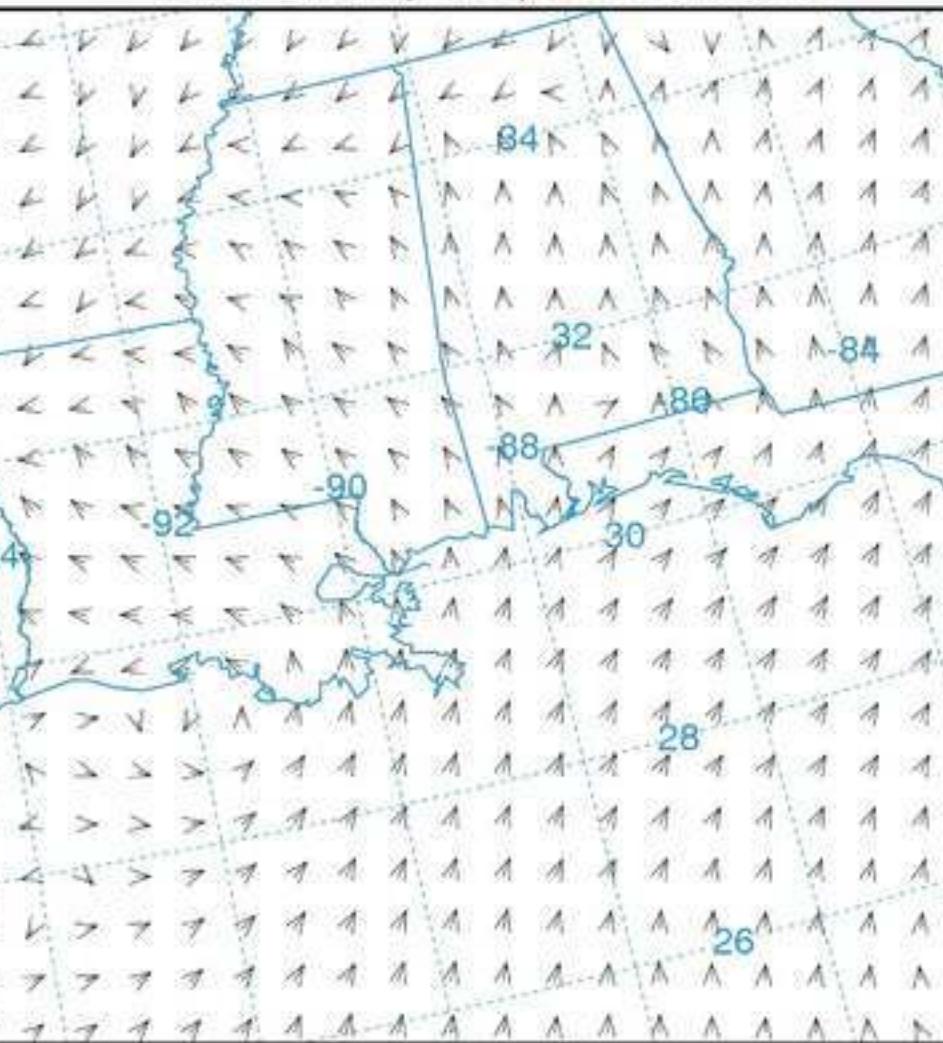


VECT ( 10) AT HEIGHT: 0.904

**Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/00

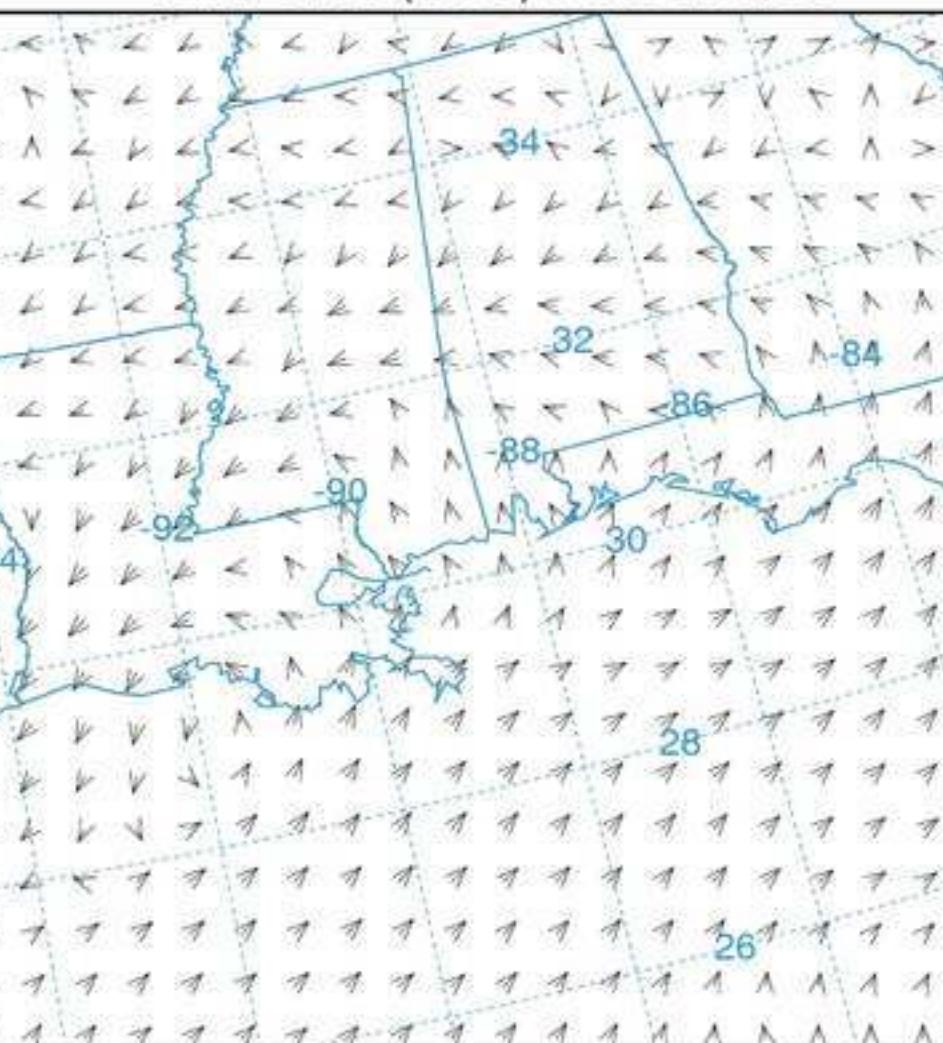


VECT ( 10) AT HEIGHT: 0.963

**Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/00

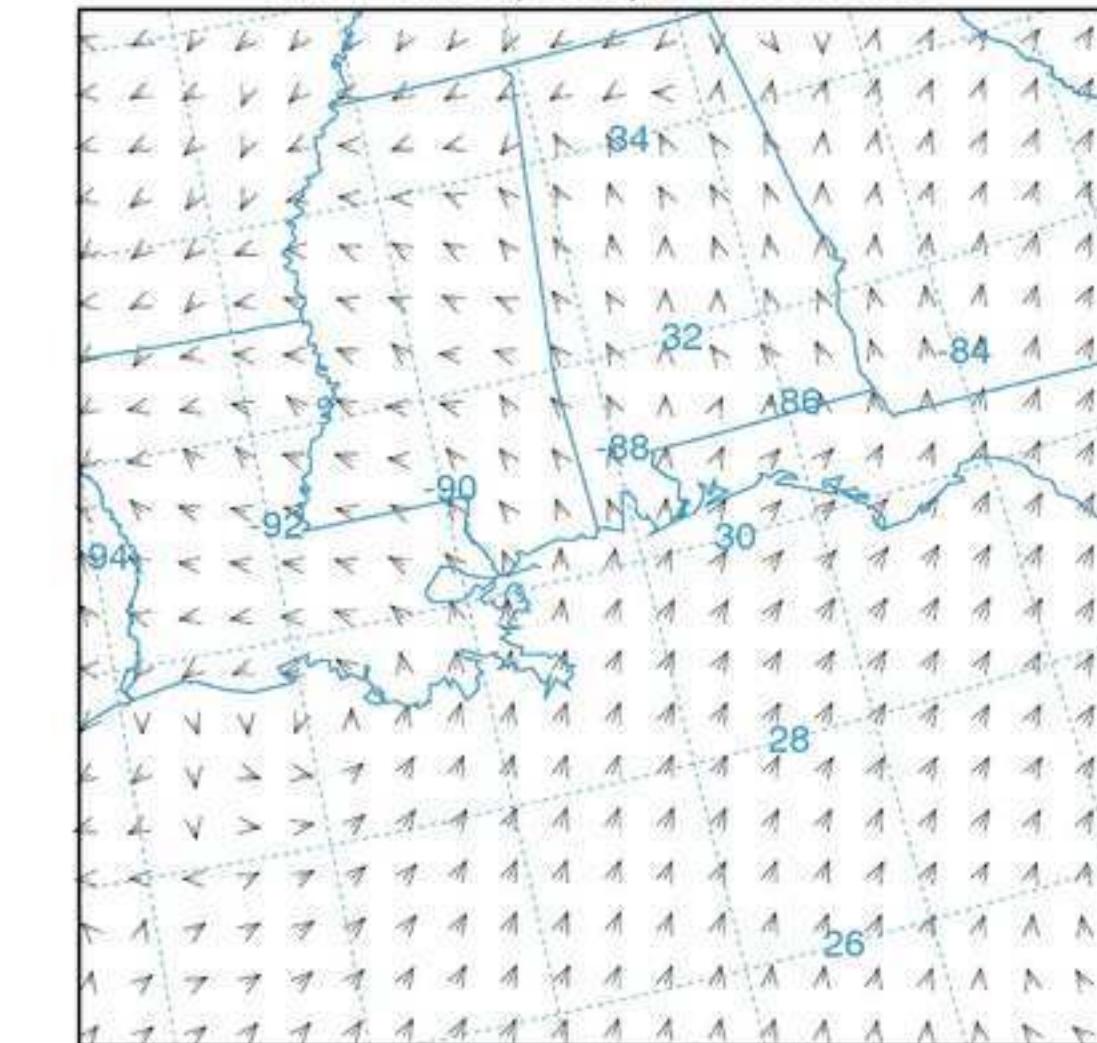


VECT ( 10) AT HEIGHT: 0.826

**Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/00

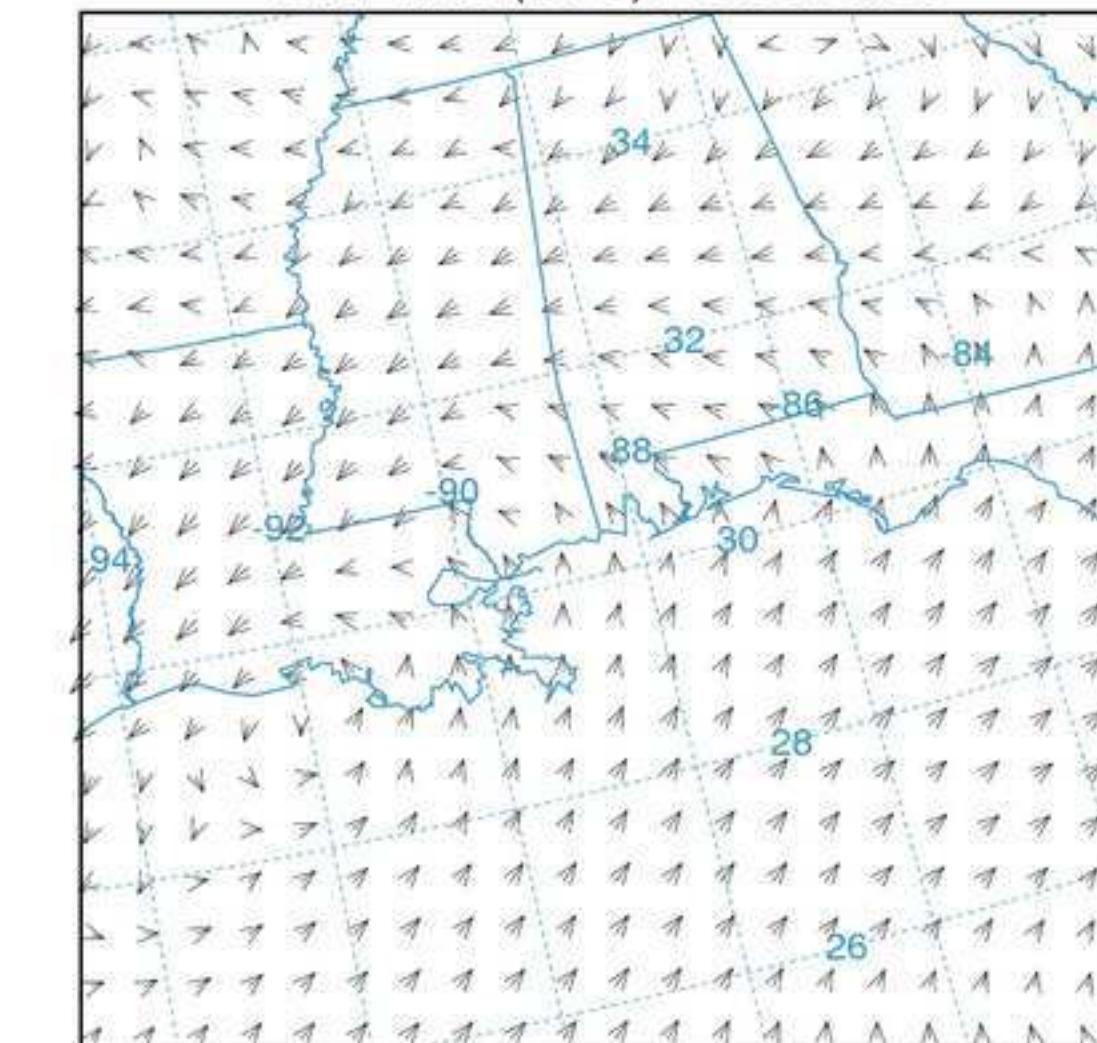


VECT ( 10) AT HEIGHT: 0.940

**Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/00

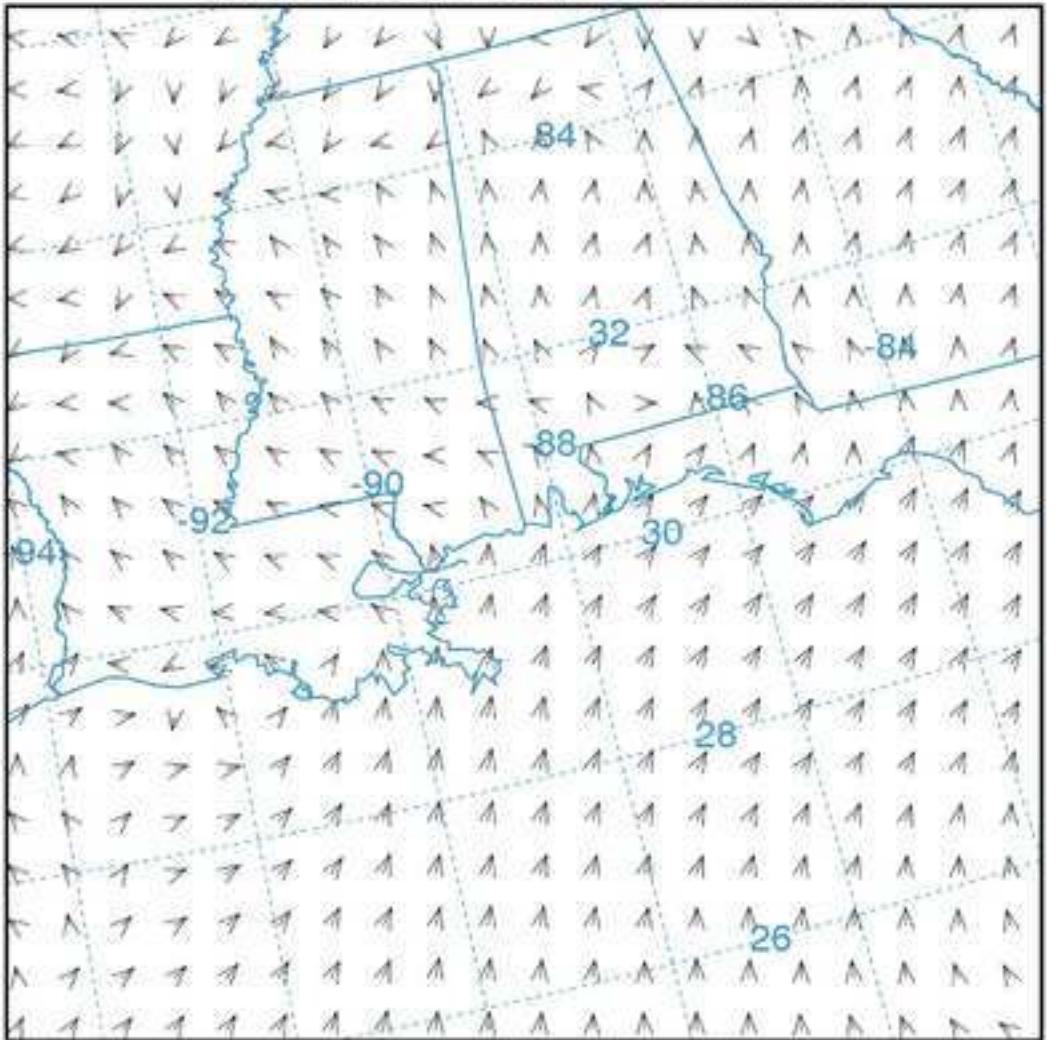


VECT ( 8) AT HEIGHT: 0.718

**Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters**

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/01

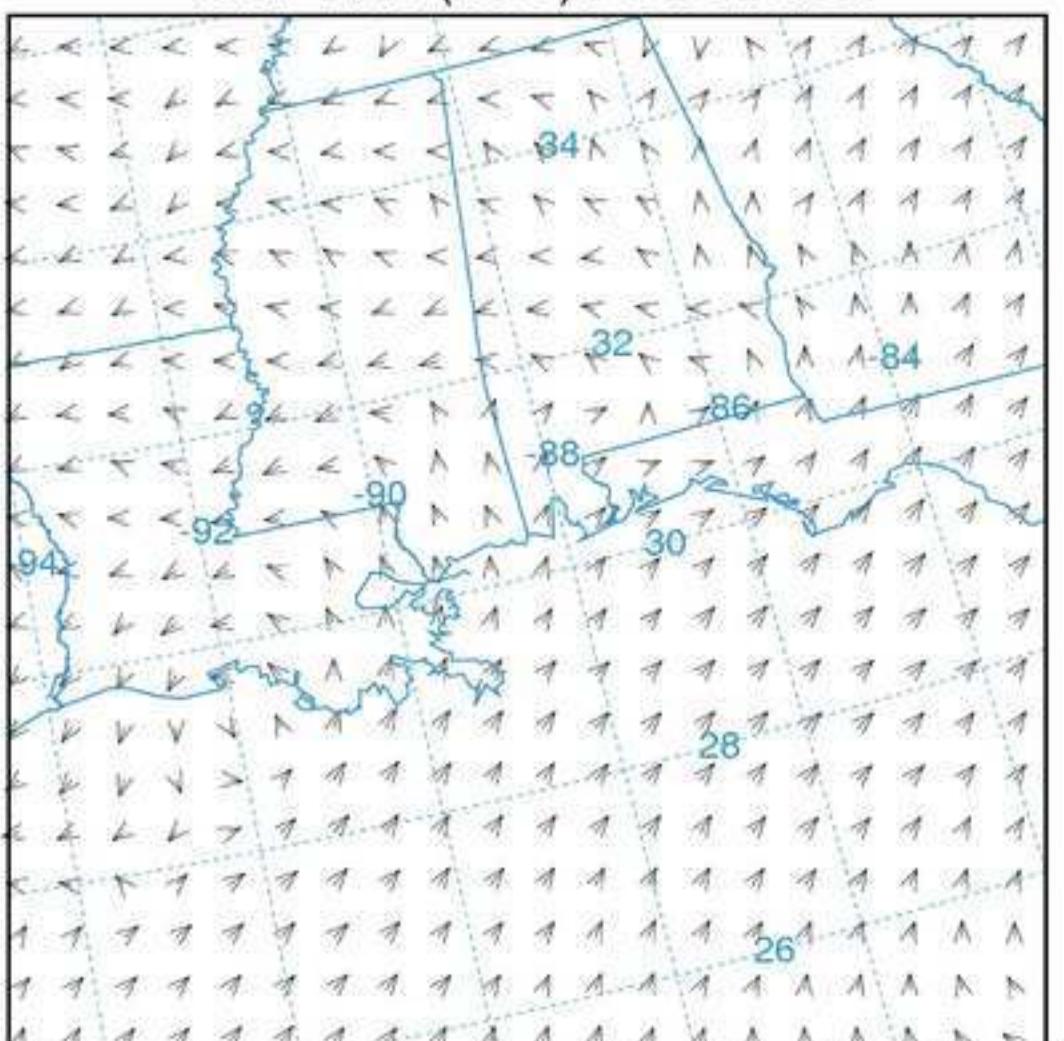


VECT ( 9) AT HEIGHT: 1.000

Wind direction data for NAMS vertical level 1,  
corresponding to the surface (~10 m)

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/01

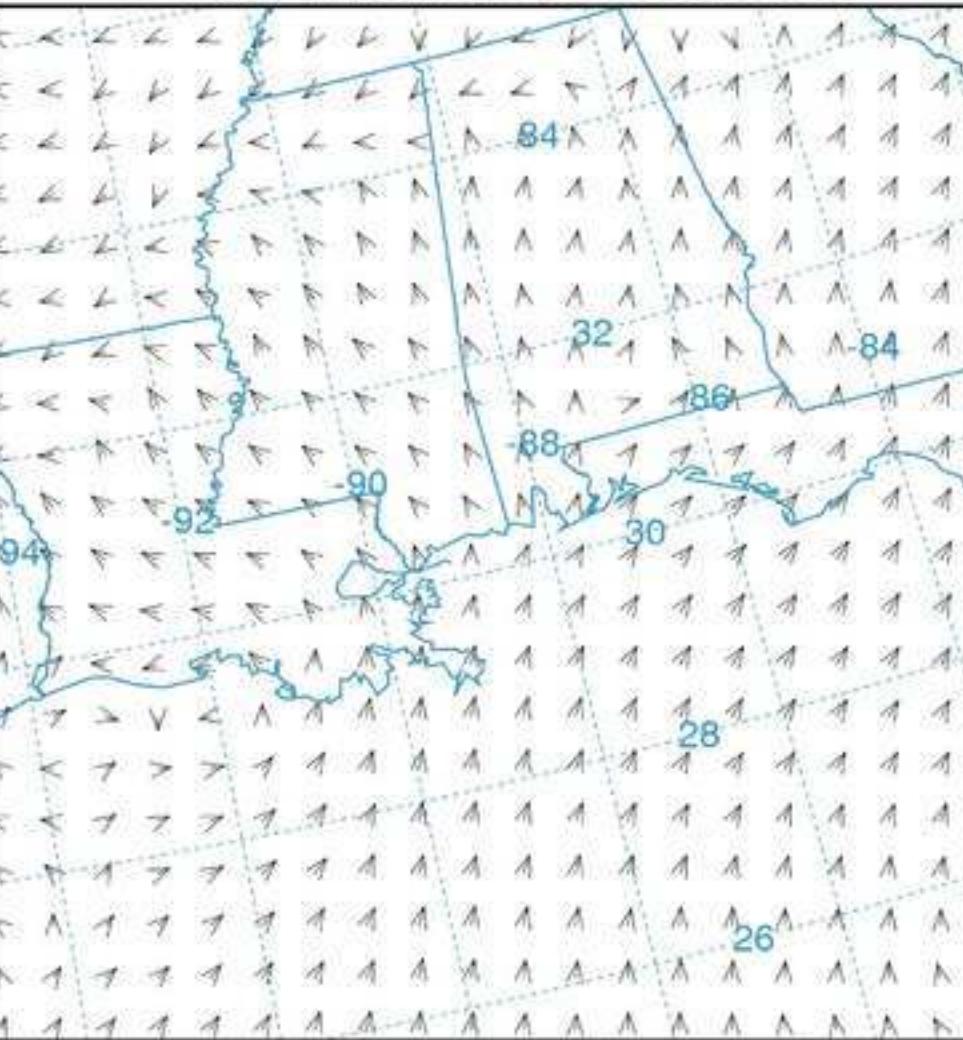


VECT ( 11) AT HEIGHT: 0.904

Wind direction data for NAMS vertical level 18,  
corresponding to a height of ~1000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/01



VECT ( 11) AT HEIGHT: 0.963

Wind direction data for NAMS vertical level 9,  
corresponding to a height of ~250 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/01

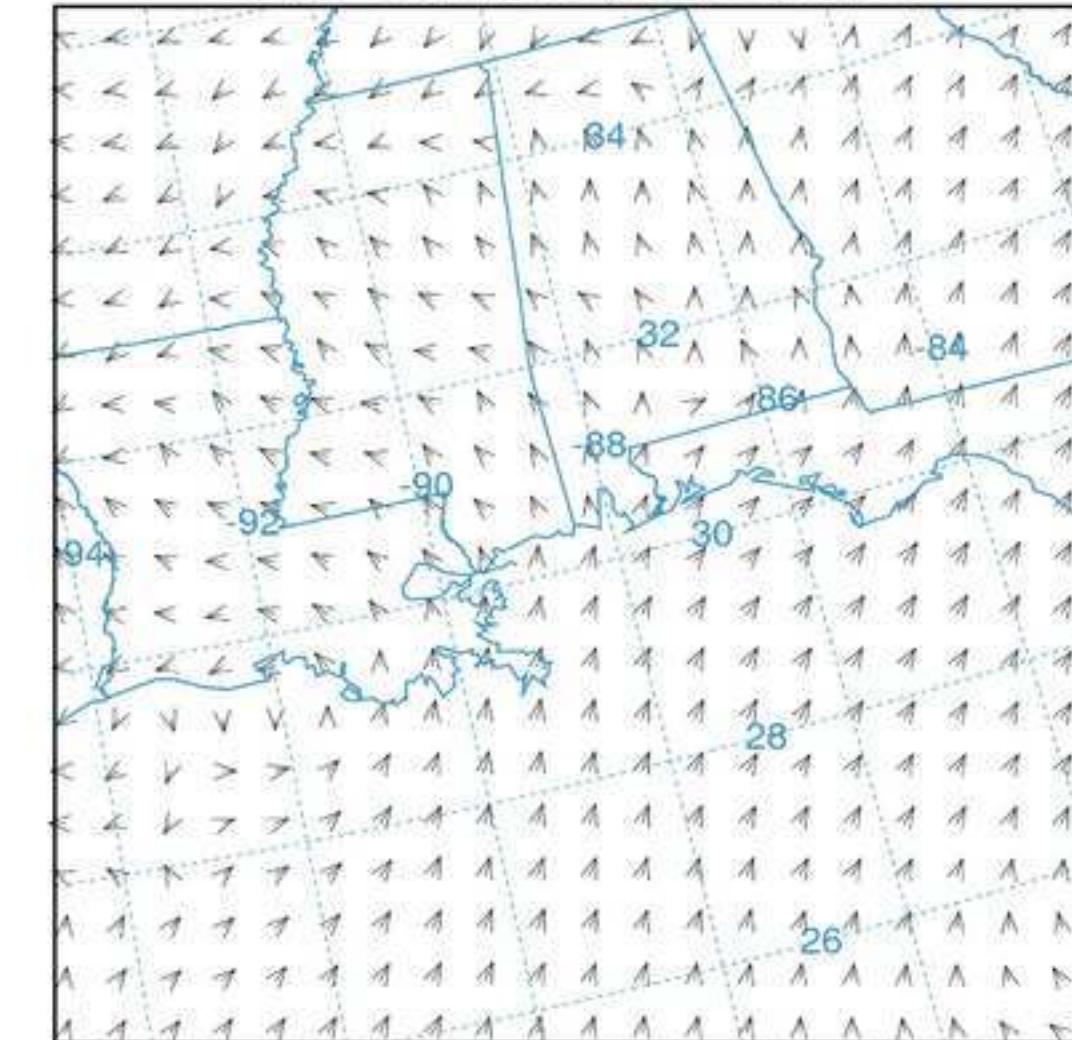


VECT ( 10) AT HEIGHT: 0.826

Wind direction data for NAMS vertical level 21,  
corresponding to a height of ~2000 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/01

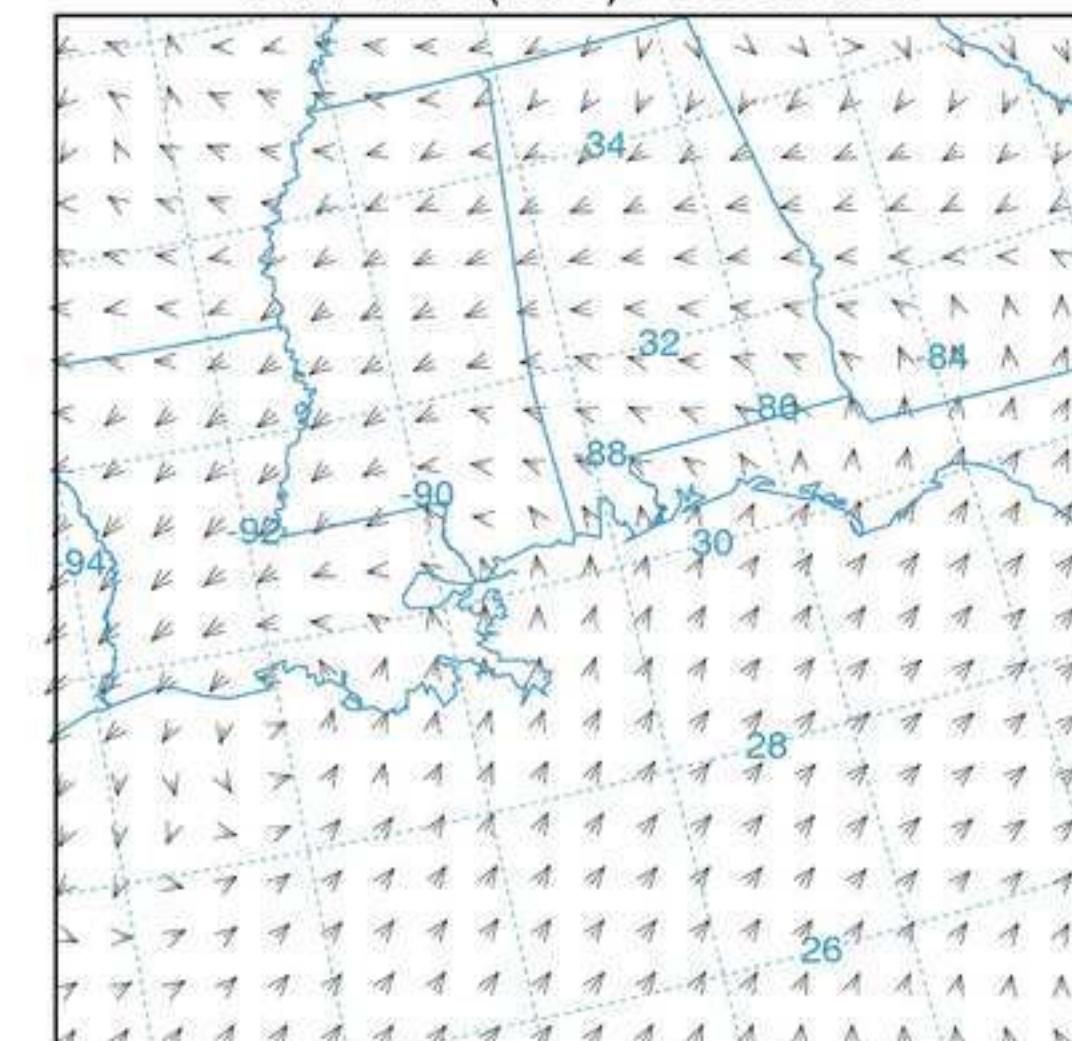


VECT ( 11) AT HEIGHT: 0.940

Wind direction data for NAMS vertical level 13,  
corresponding to a height of ~500 meters

## NOAA AIR RESOURCES LABORATORY

Valid Time (UTC): 10/08/13/01

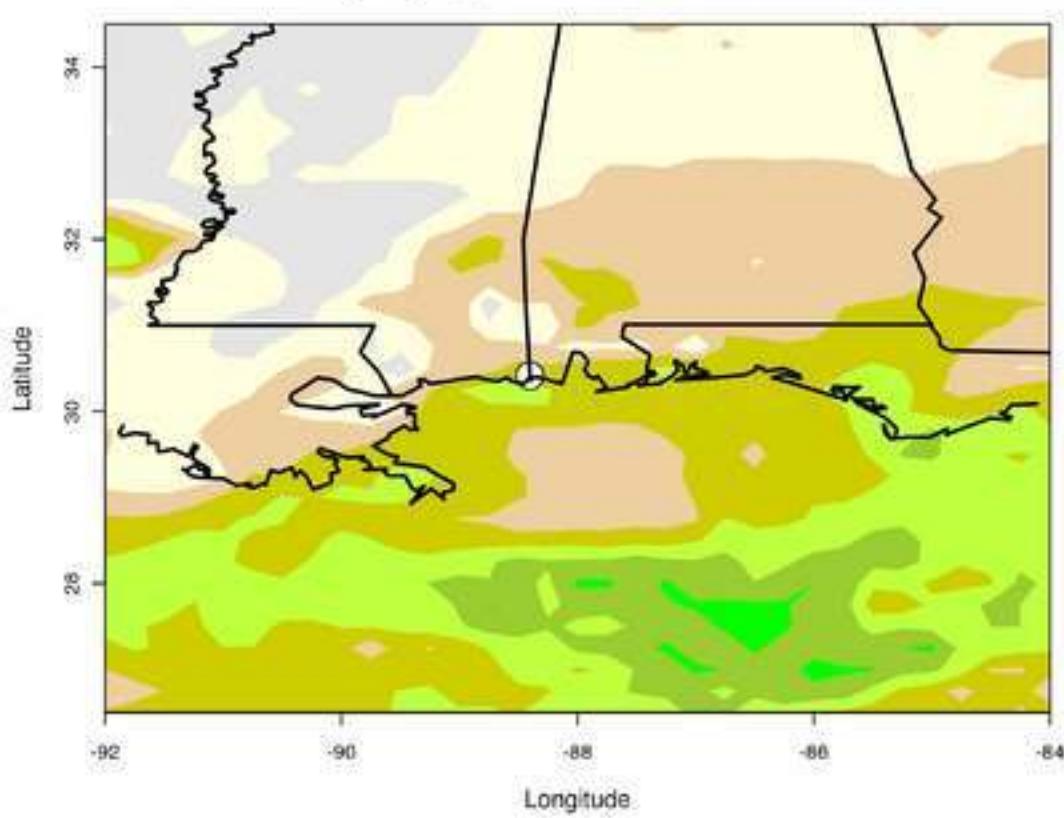


VECT ( 9) AT HEIGHT: 0.718

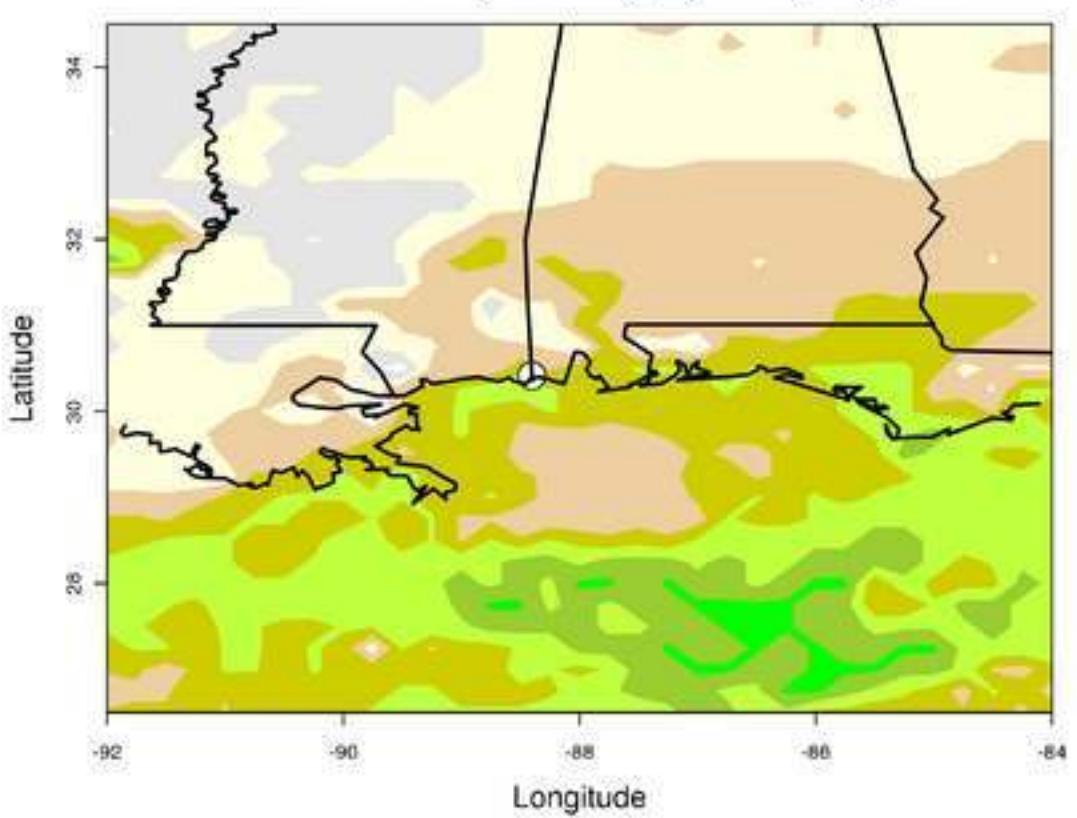
Wind direction data for NAMS vertical level 24,  
corresponding to a height of ~3000 meters

**FORECAST for 2010\_08\_12, local hour = 09**

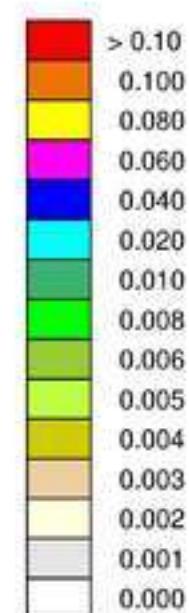
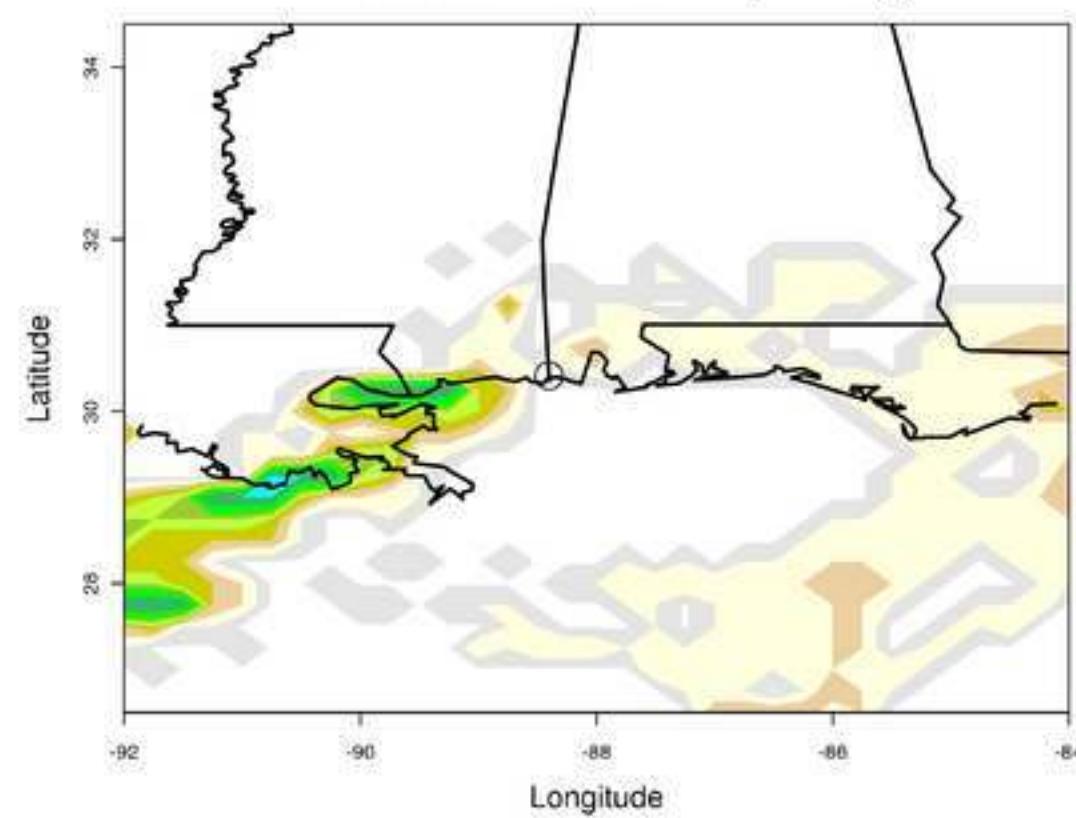
Mixing Heights (m) Estimated with the HYSPLIT Model



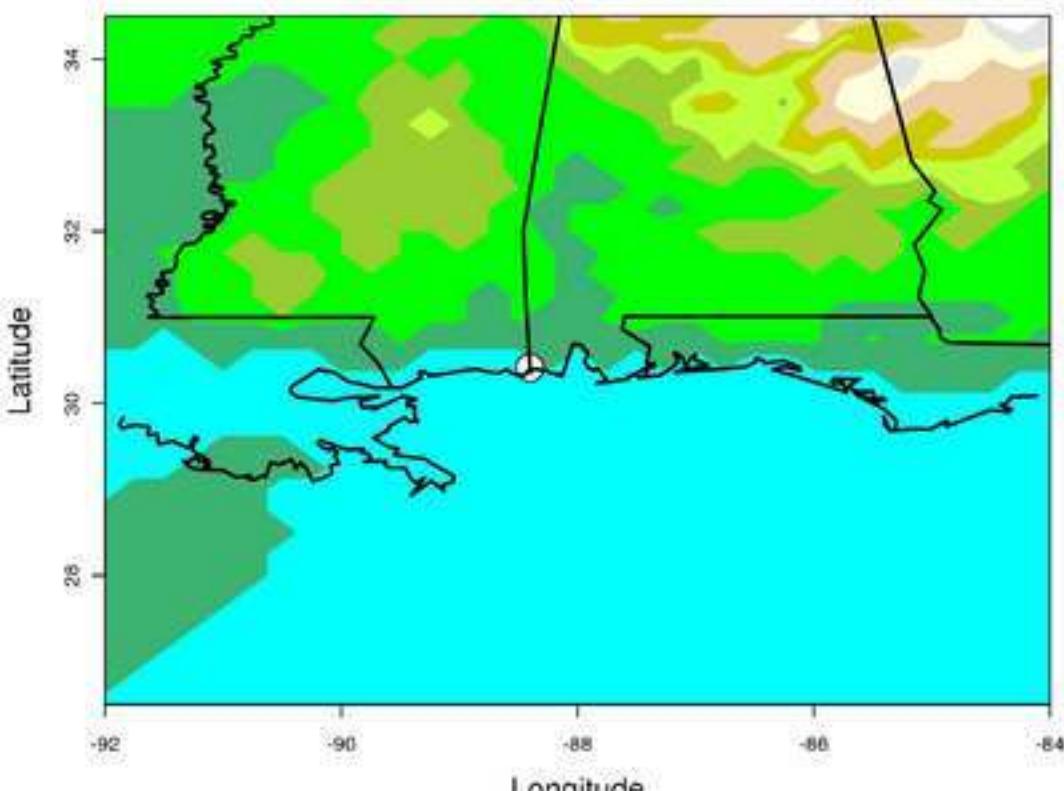
PBLH: Planetary Boundary Layer Height (m)



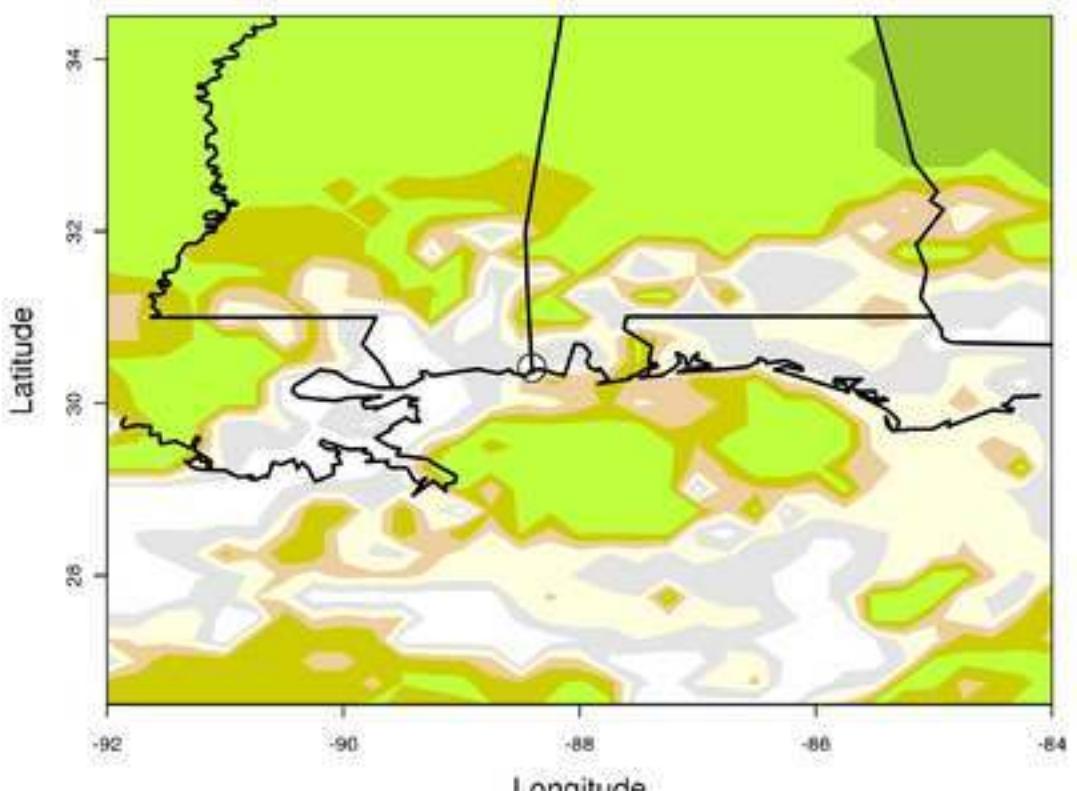
TPP3: 3-hour Accumulated Precipitation (m)



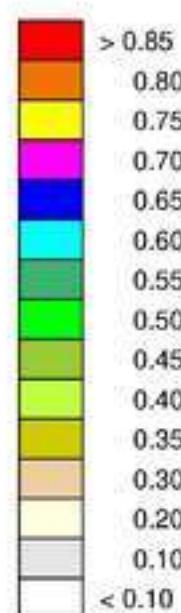
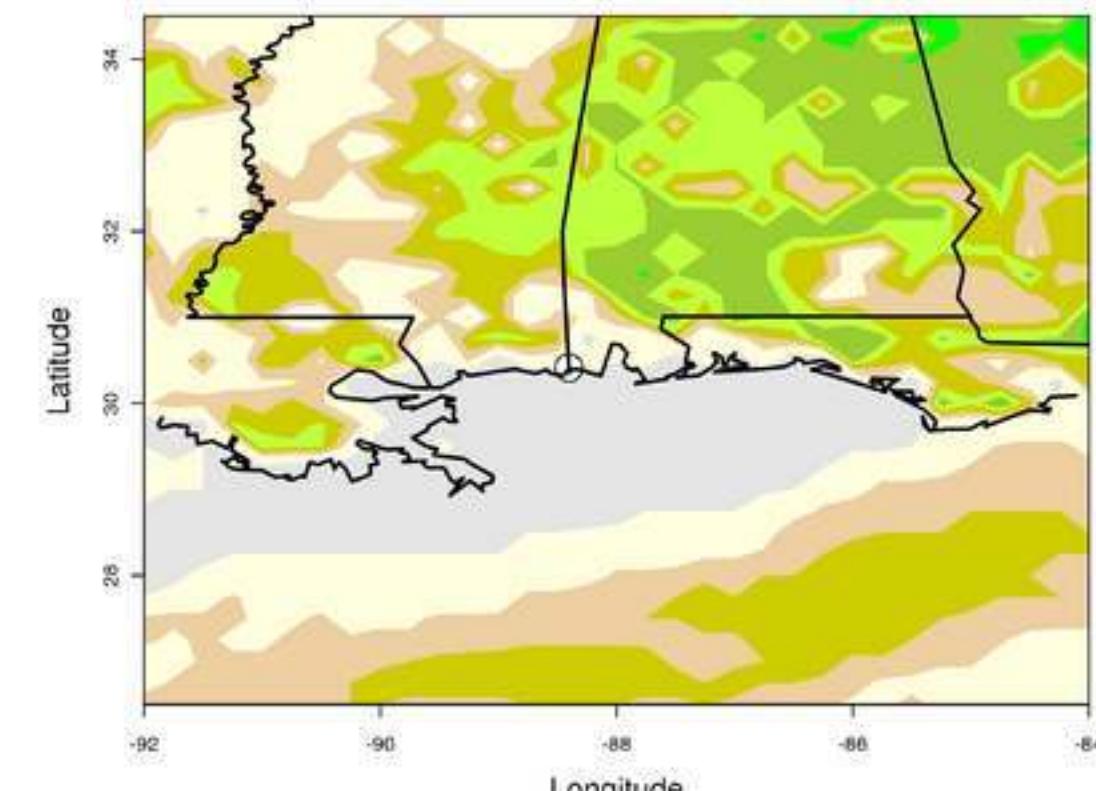
PRSS: Surface Pressure (hPa)



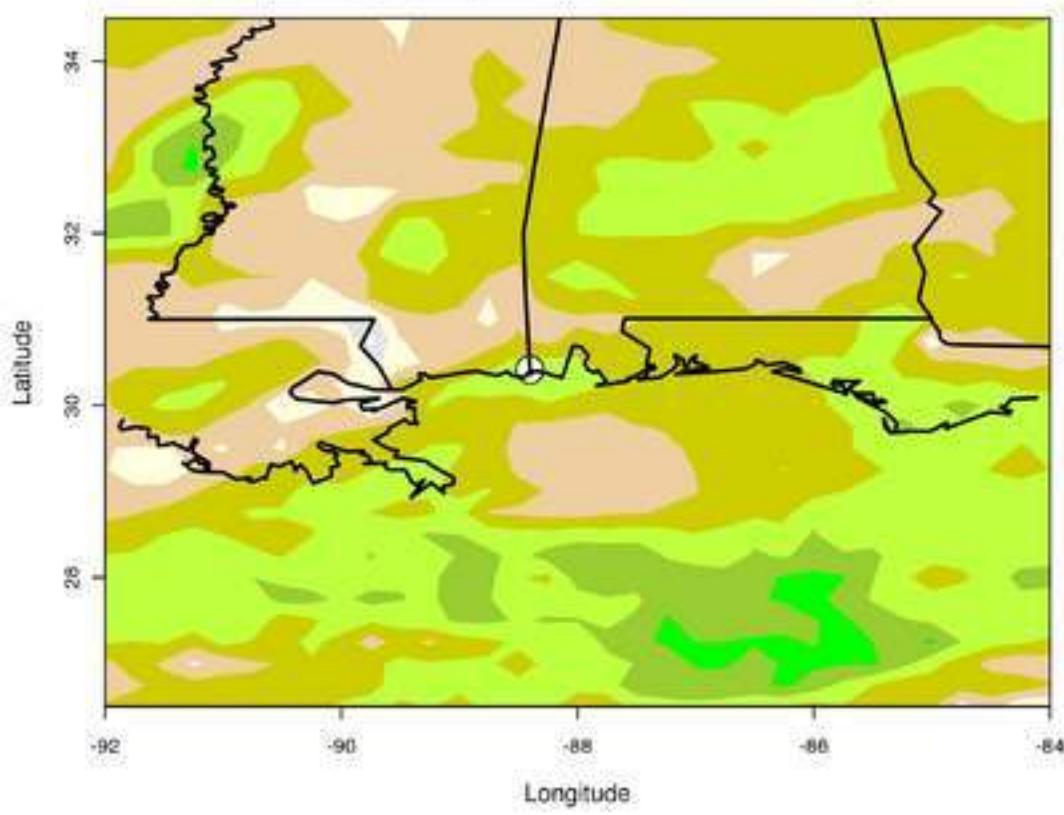
DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)



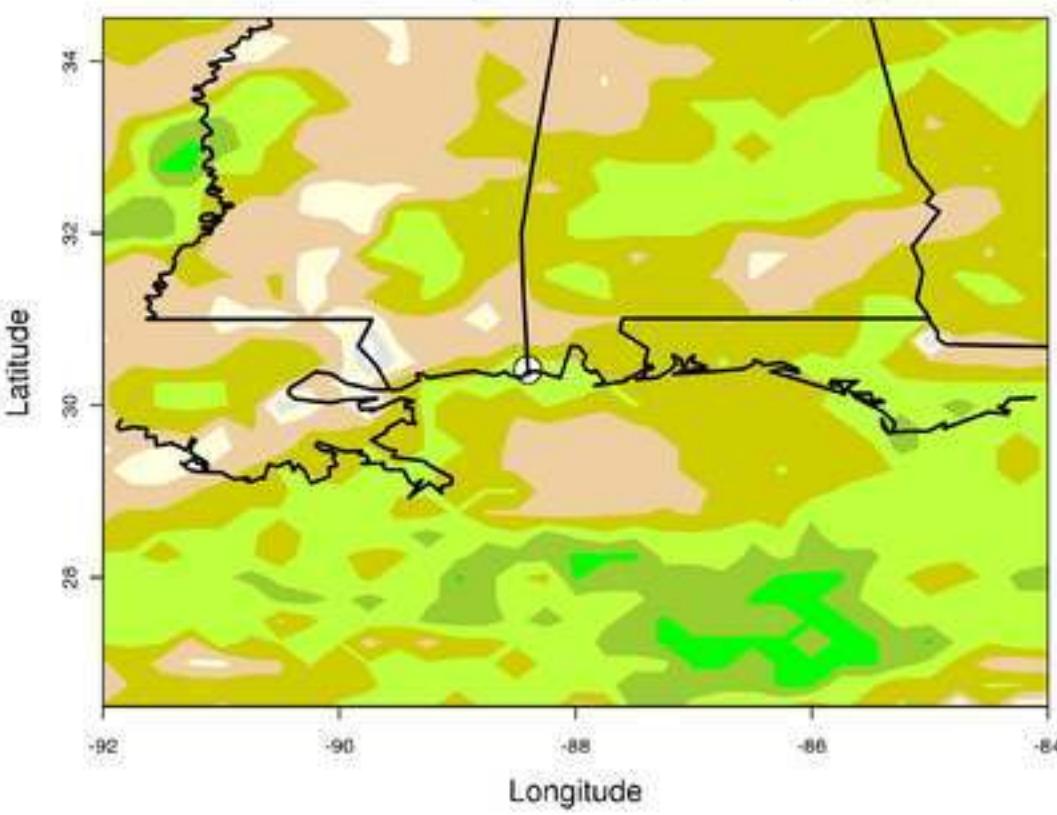
USTR: Friction Velocity (m/sec)



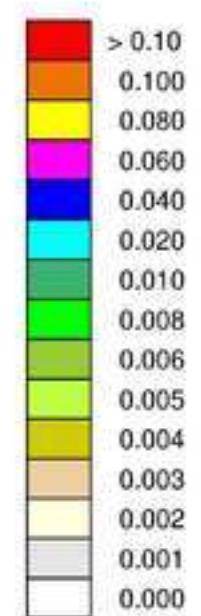
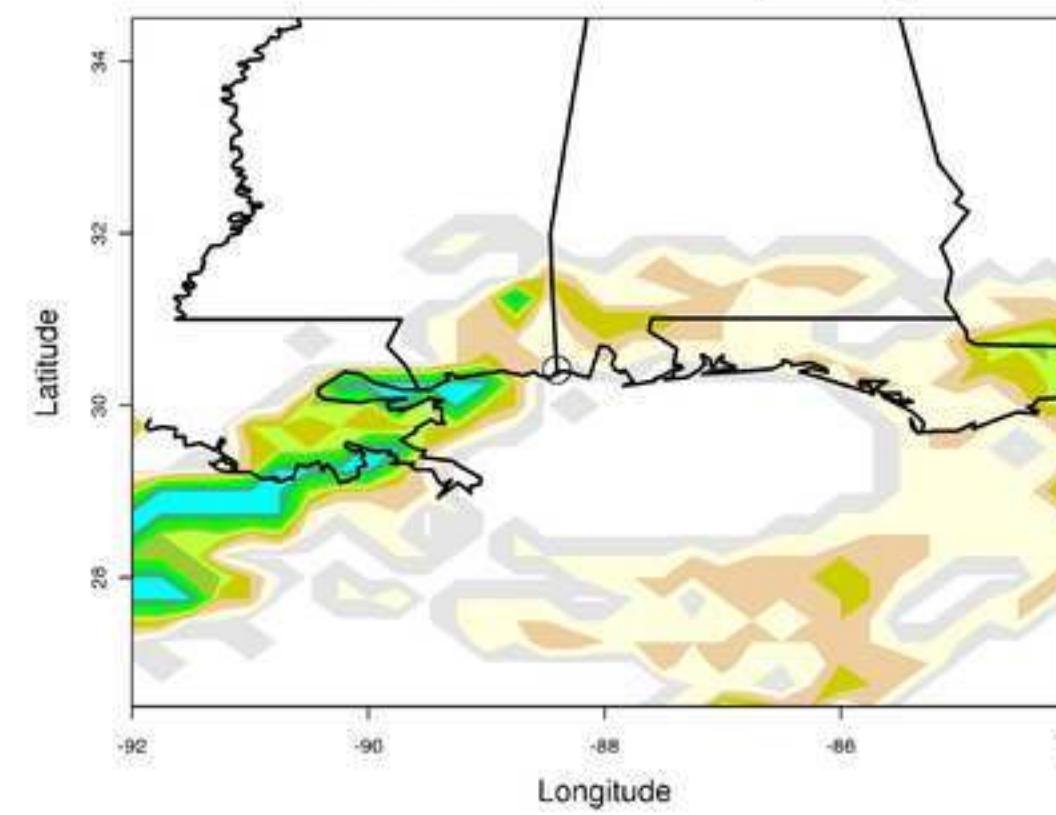
**FORECAST for 2010\_08\_12, local hour = 10**  
Mixing Heights (m) Estimated with the HYSPLIT Model



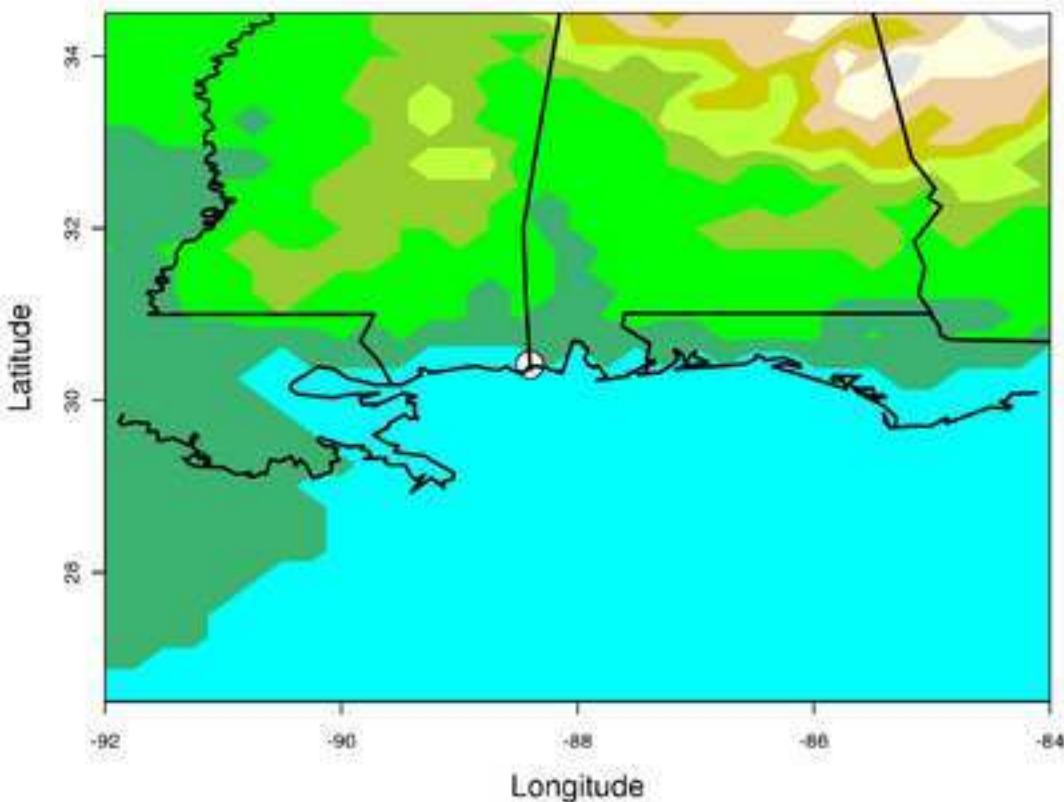
**PBLH: Planetary Boundary Layer Height (m)**



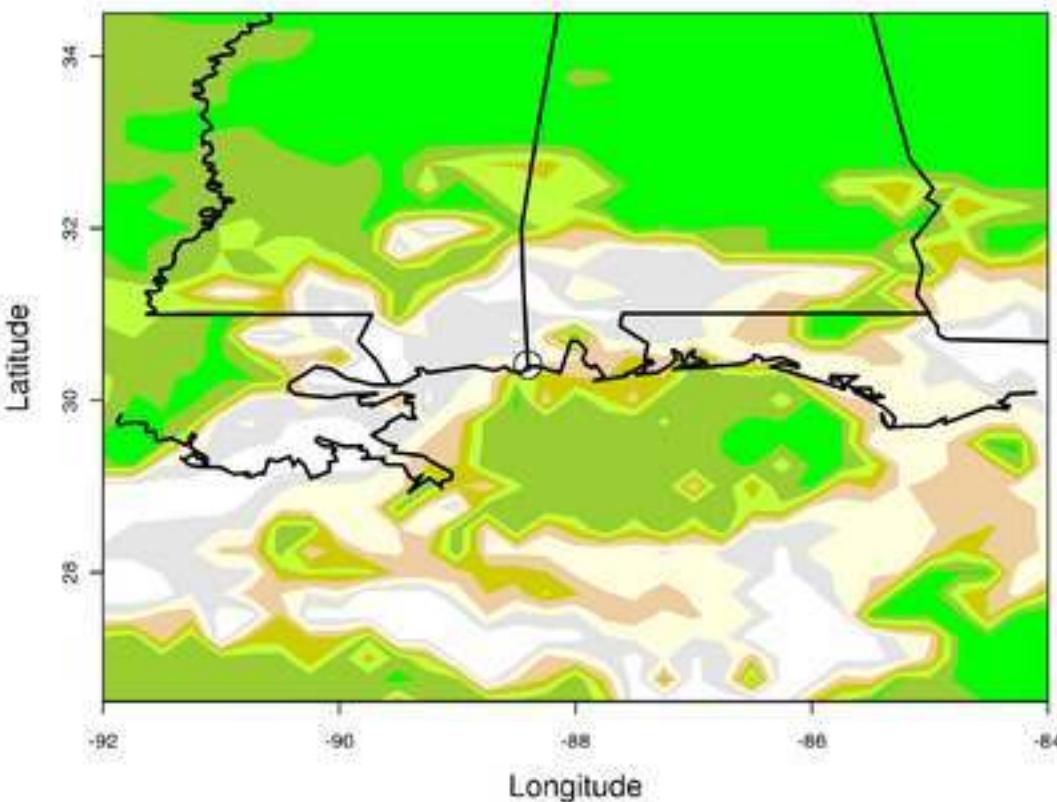
**TPP3: 3-hour Accumulated Precipitation (m)**



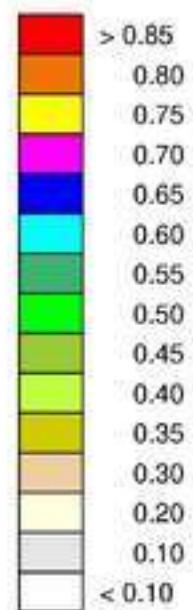
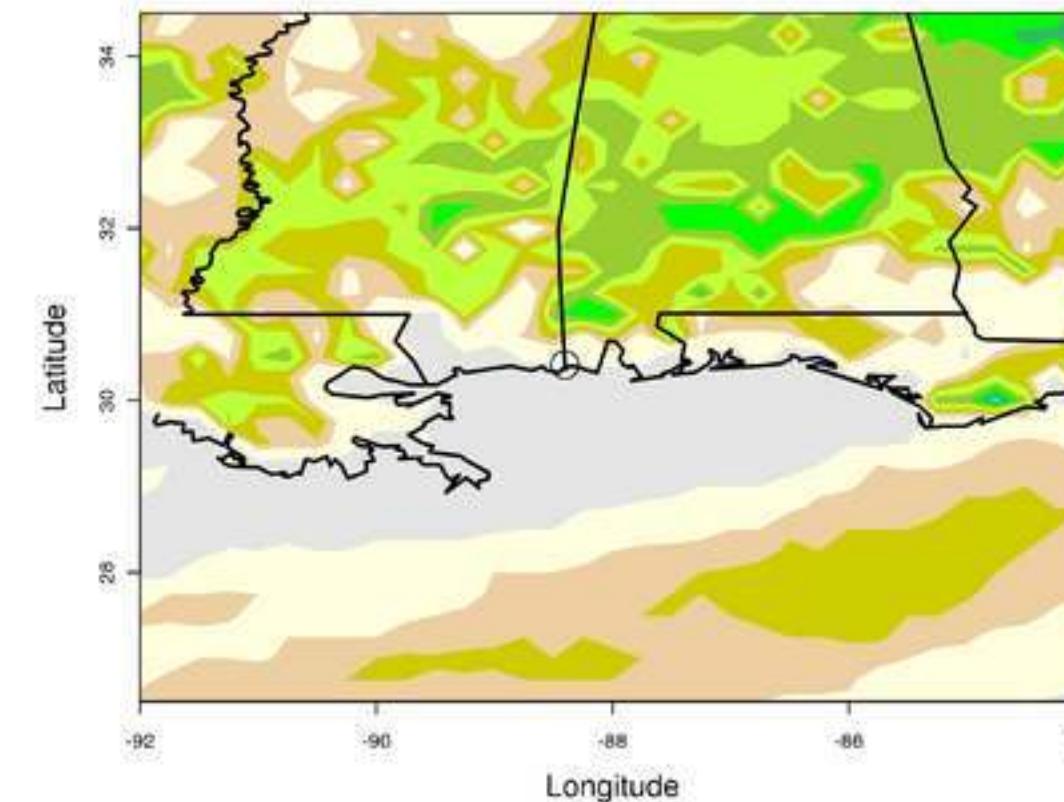
**PRSS: Surface Pressure (hPa)**



**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**

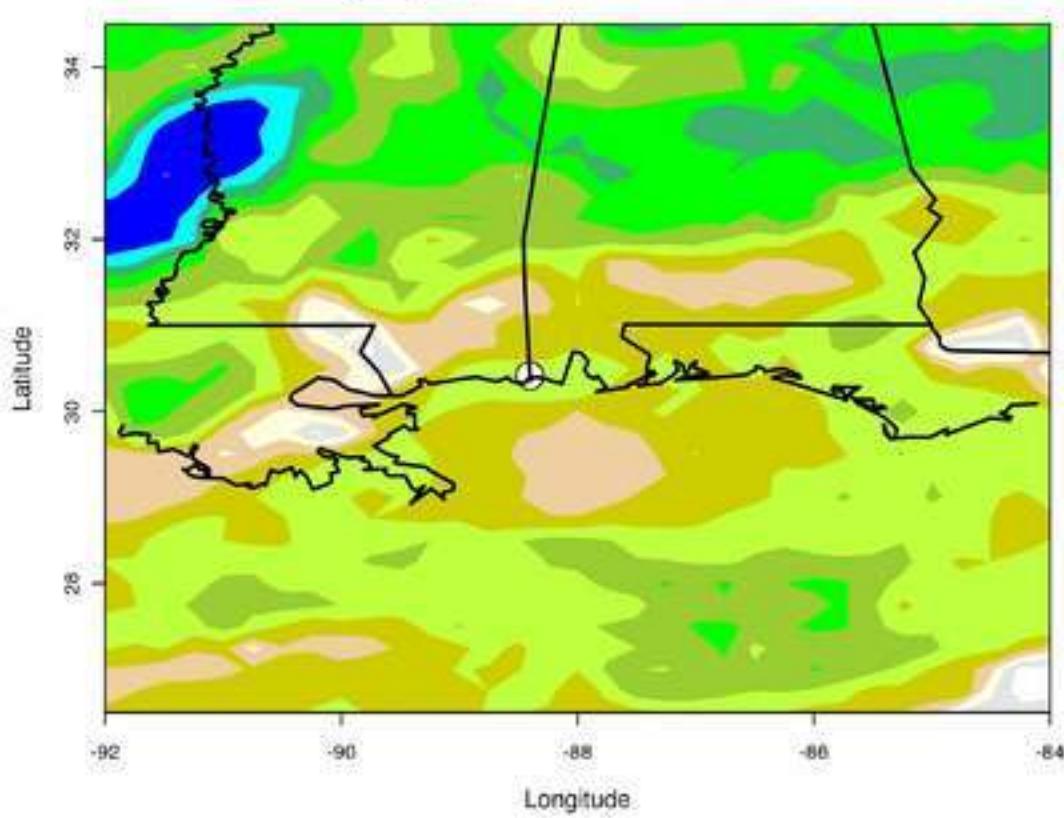


**USTR: Friction Velocity (m/sec)**

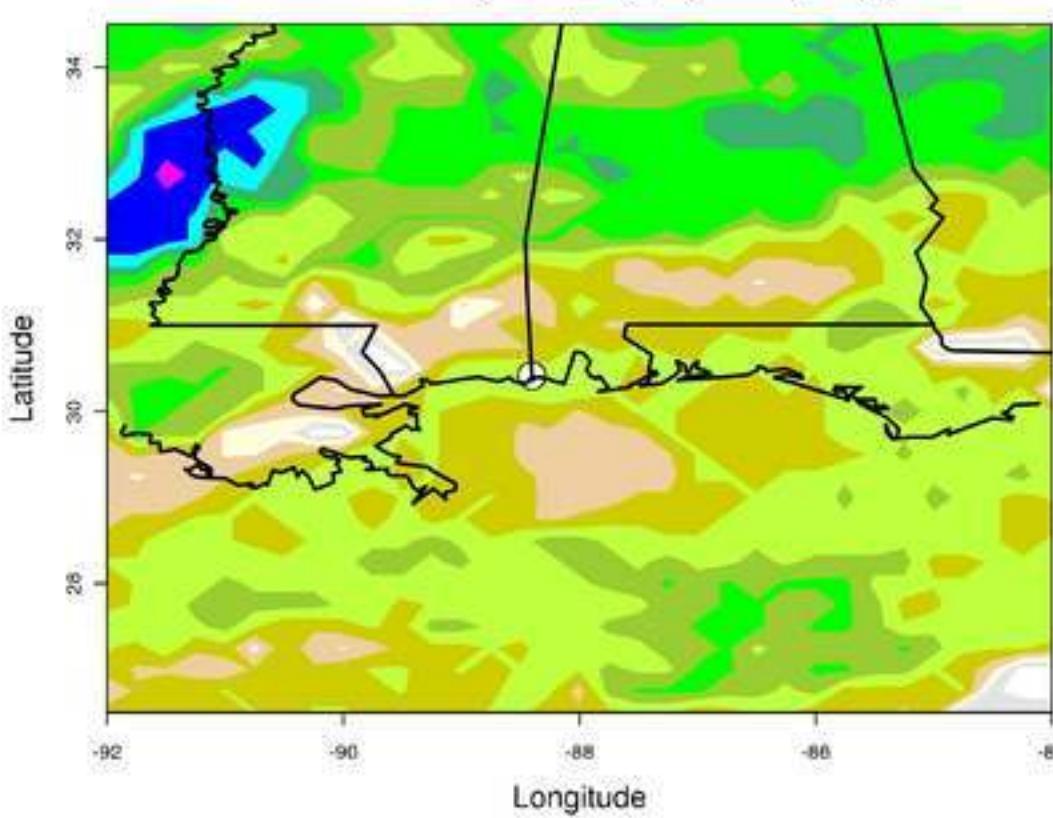


**FORECAST for 2010\_08\_12, local hour = 11**

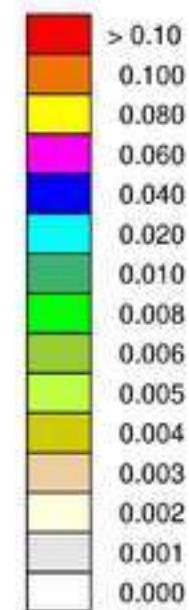
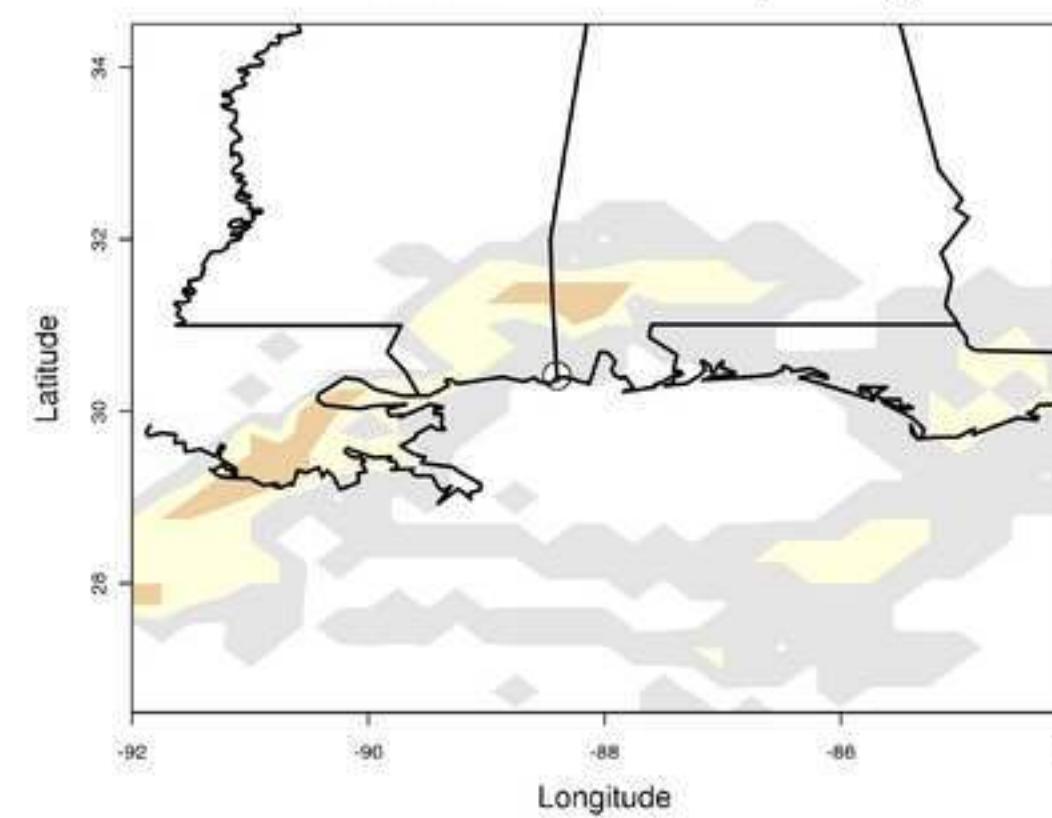
Mixing Heights (m) Estimated with the HYSPLIT Model



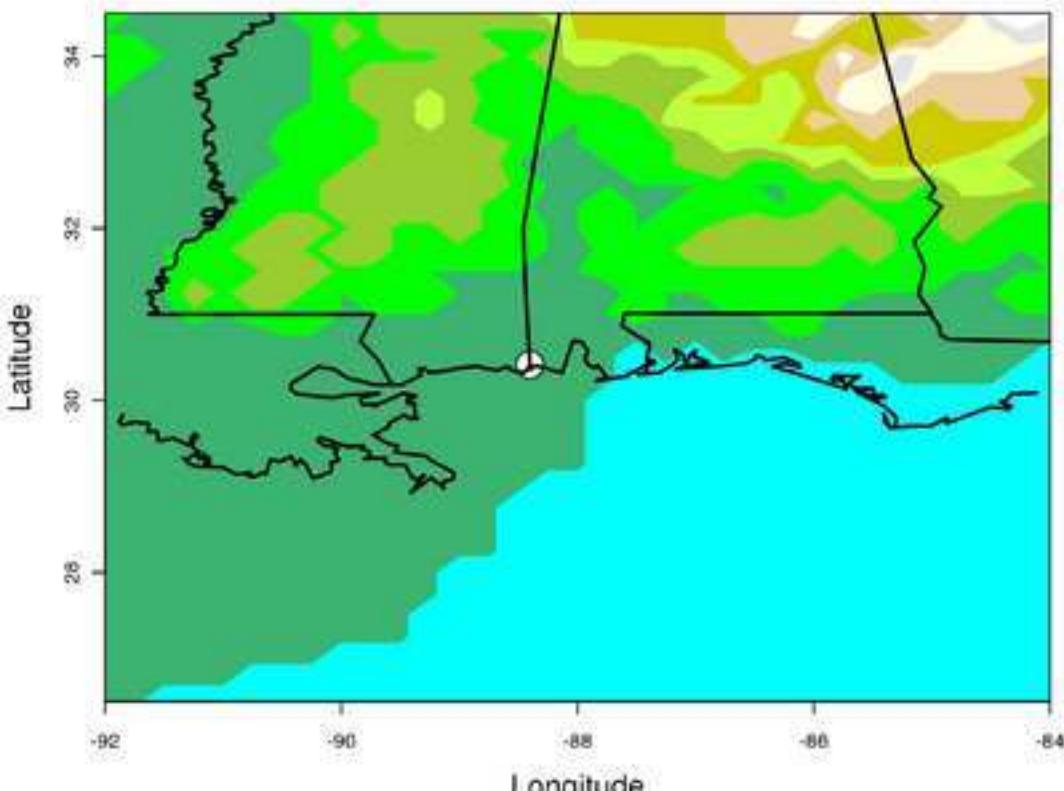
**PBLH: Planetary Boundary Layer Height (m)**



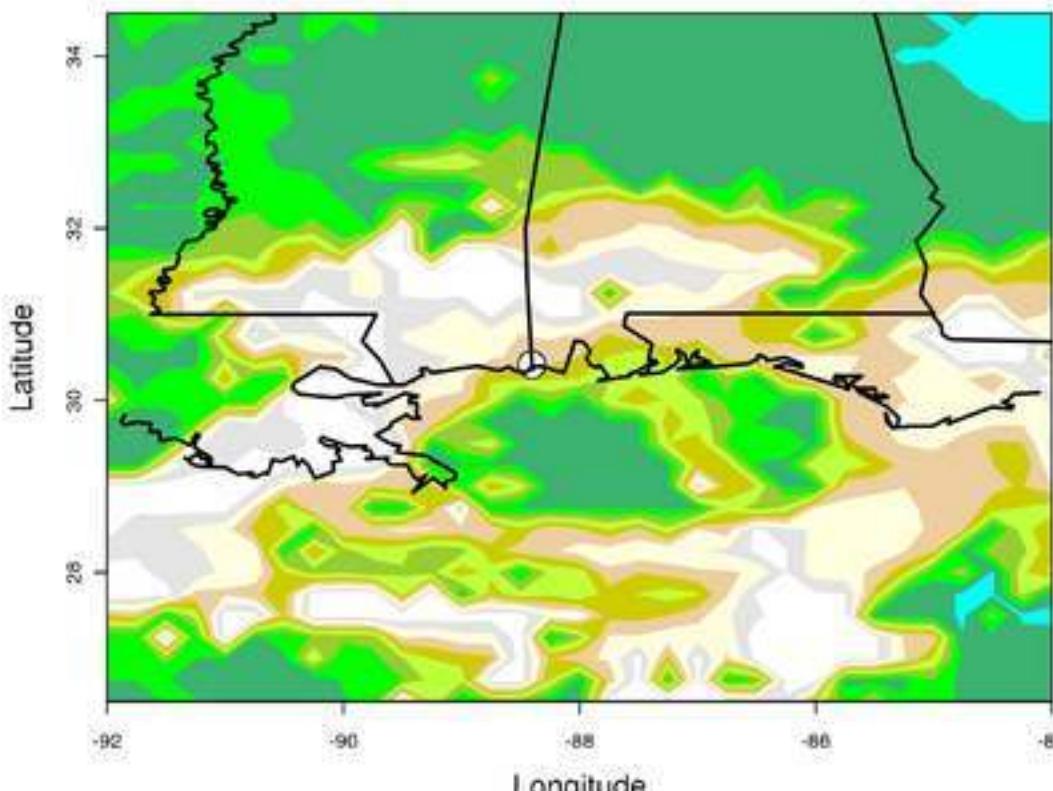
**TPP3: 3-hour Accumulated Precipitation (m)**



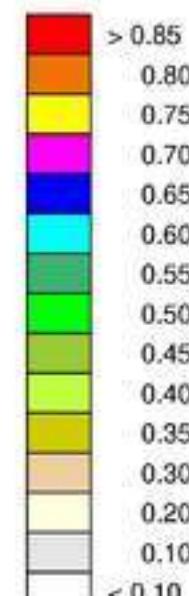
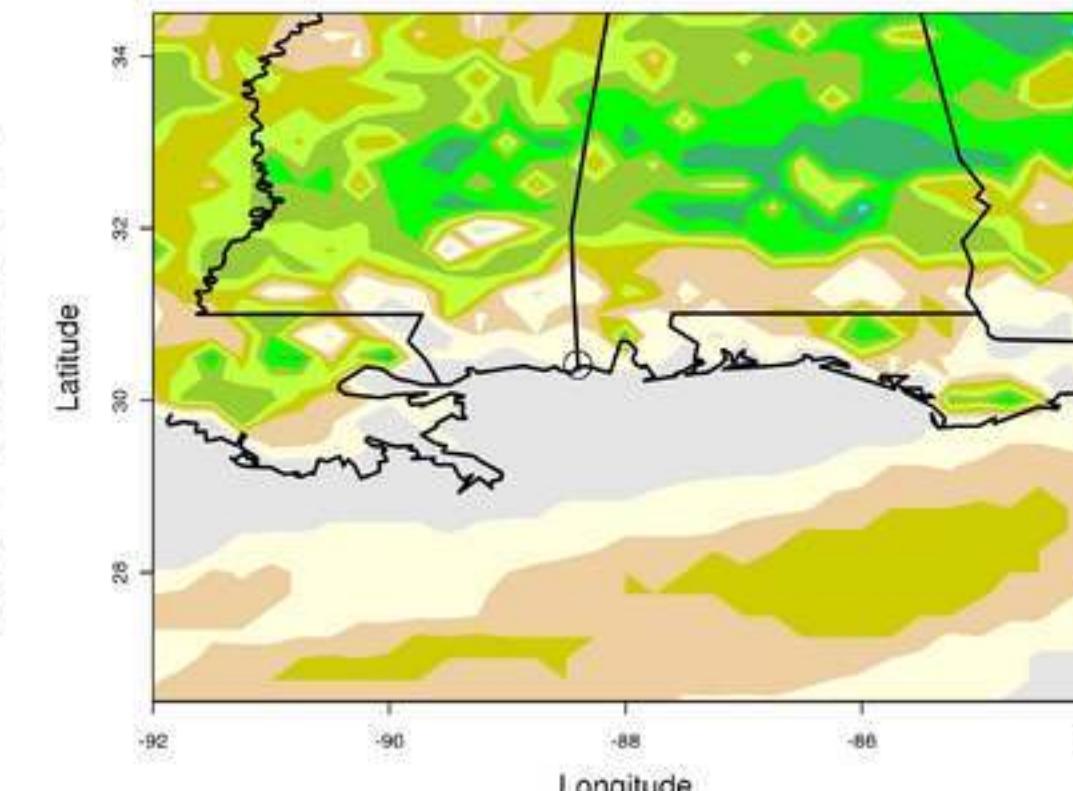
**PRSS: Surface Pressure (hPa)**



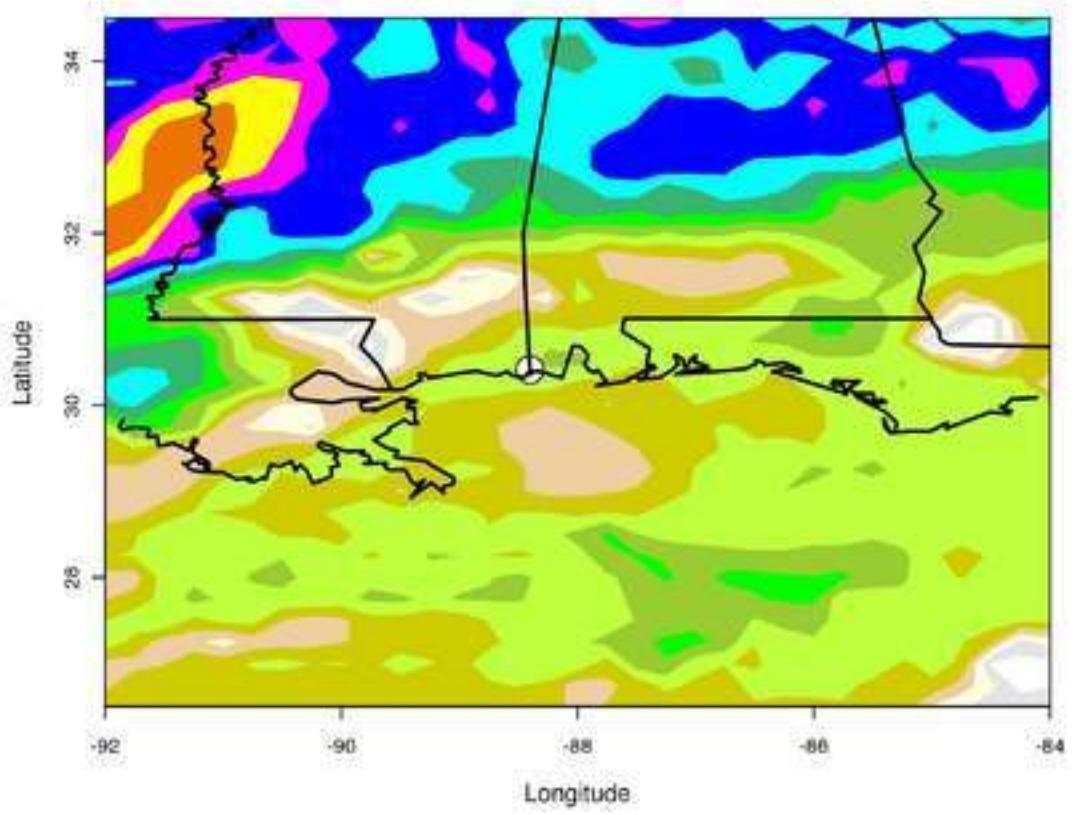
**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**



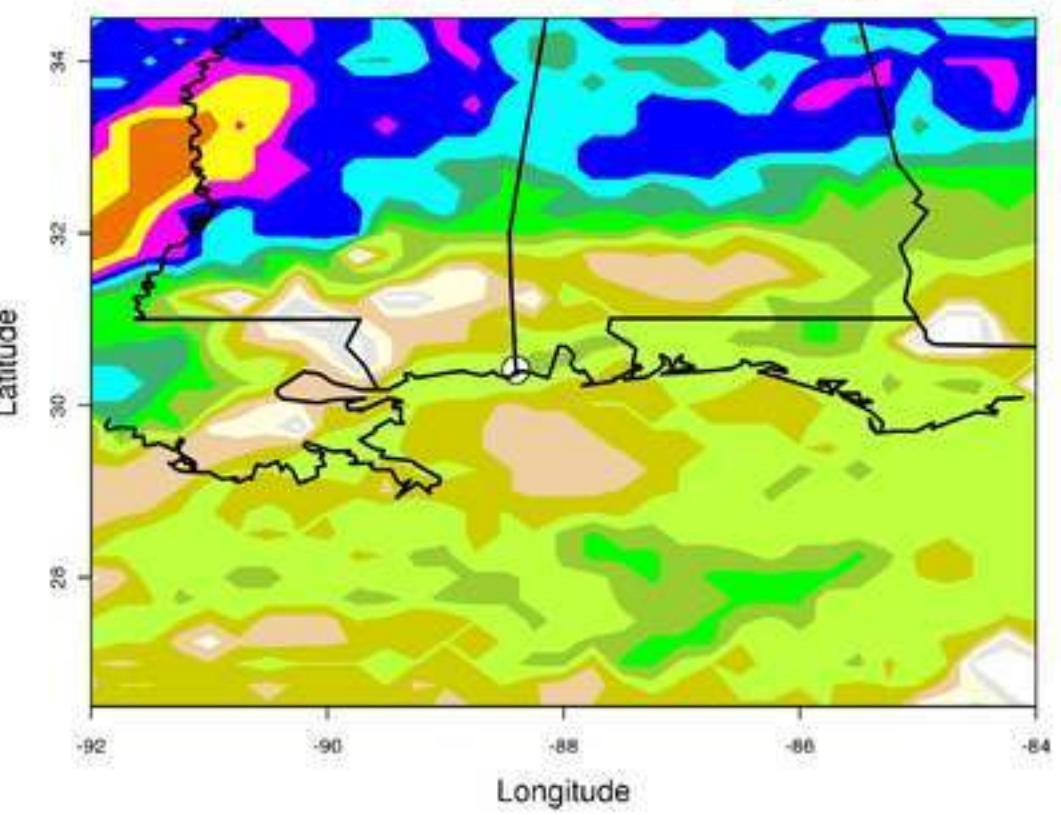
**USTR: Friction Velocity (m/sec)**



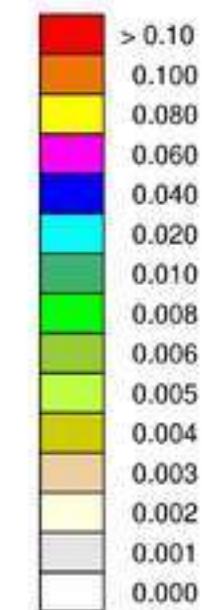
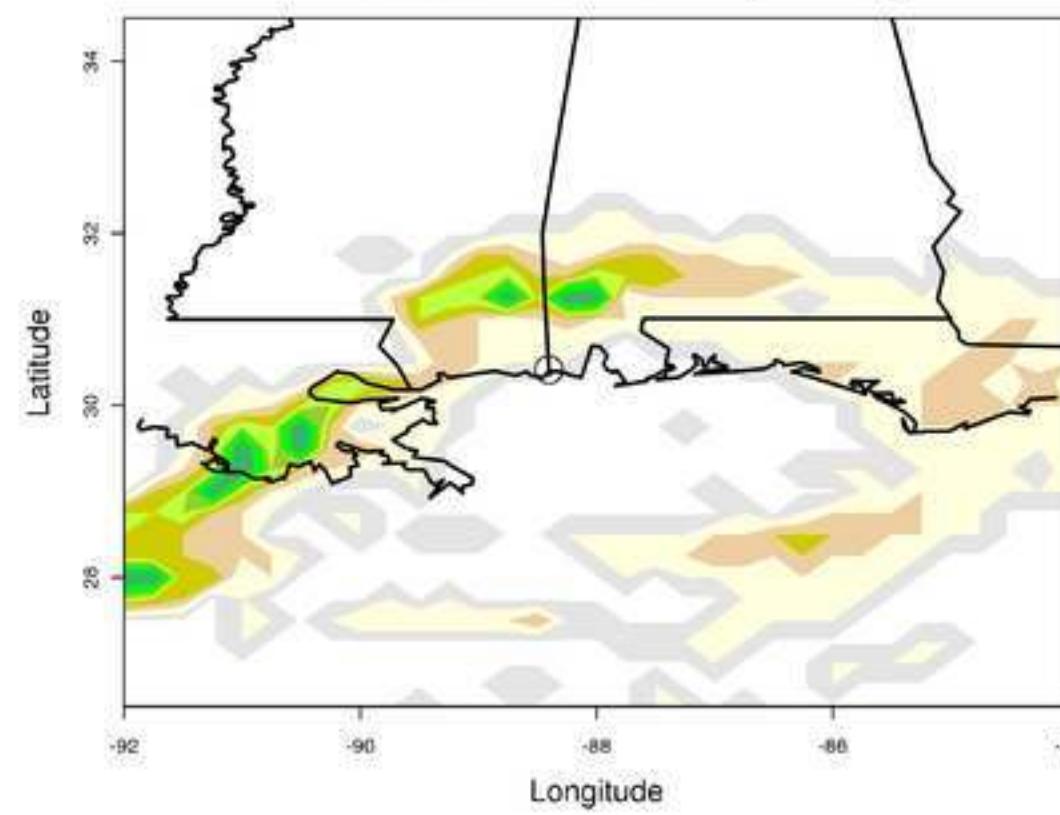
**FORECAST for 2010\_08\_12, local hour = 12**  
Mixing Heights (m) Estimated with the HYSPLIT Model



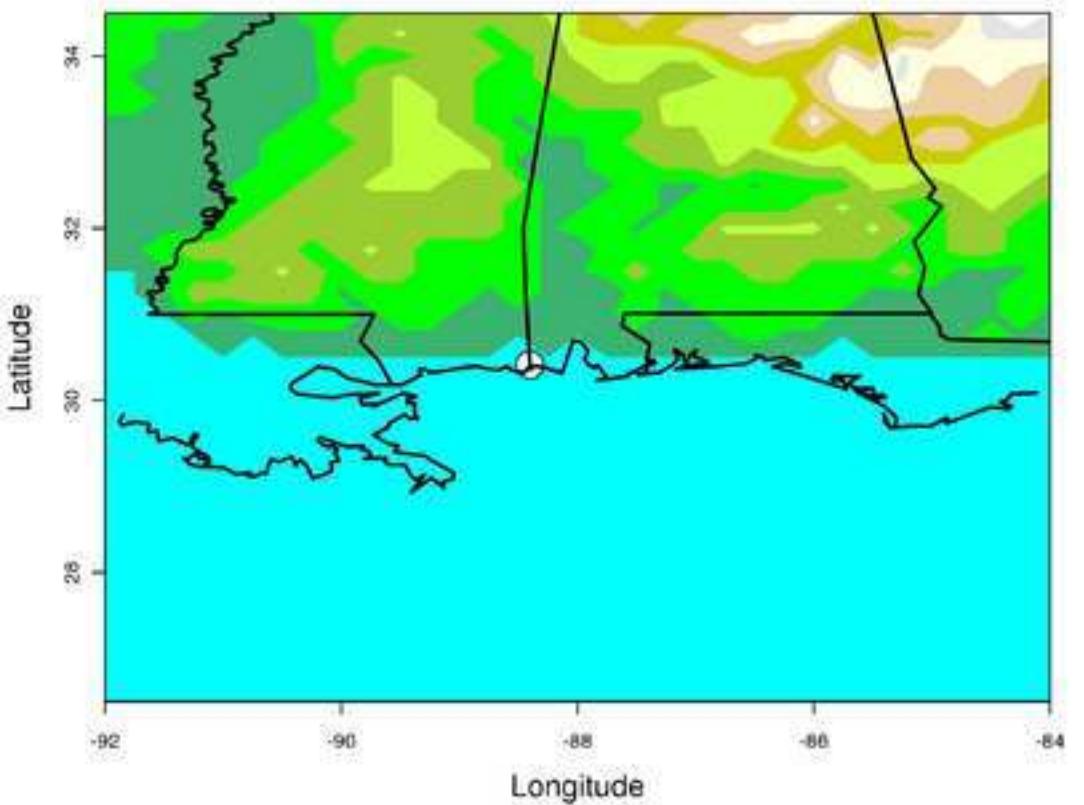
**PBLH: Planetary Boundary Layer Height (m)**



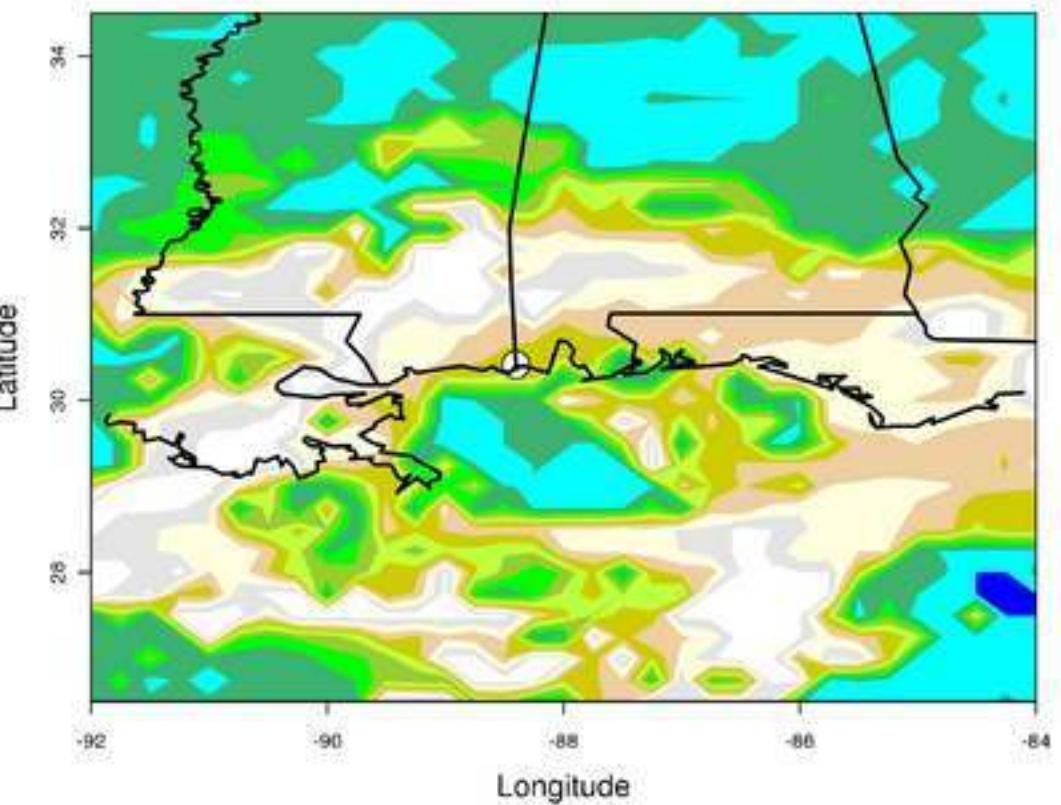
**TPP3: 3-hour Accumulated Precipitation (m)**



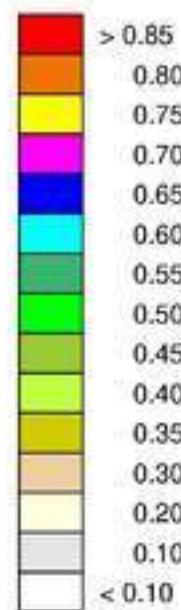
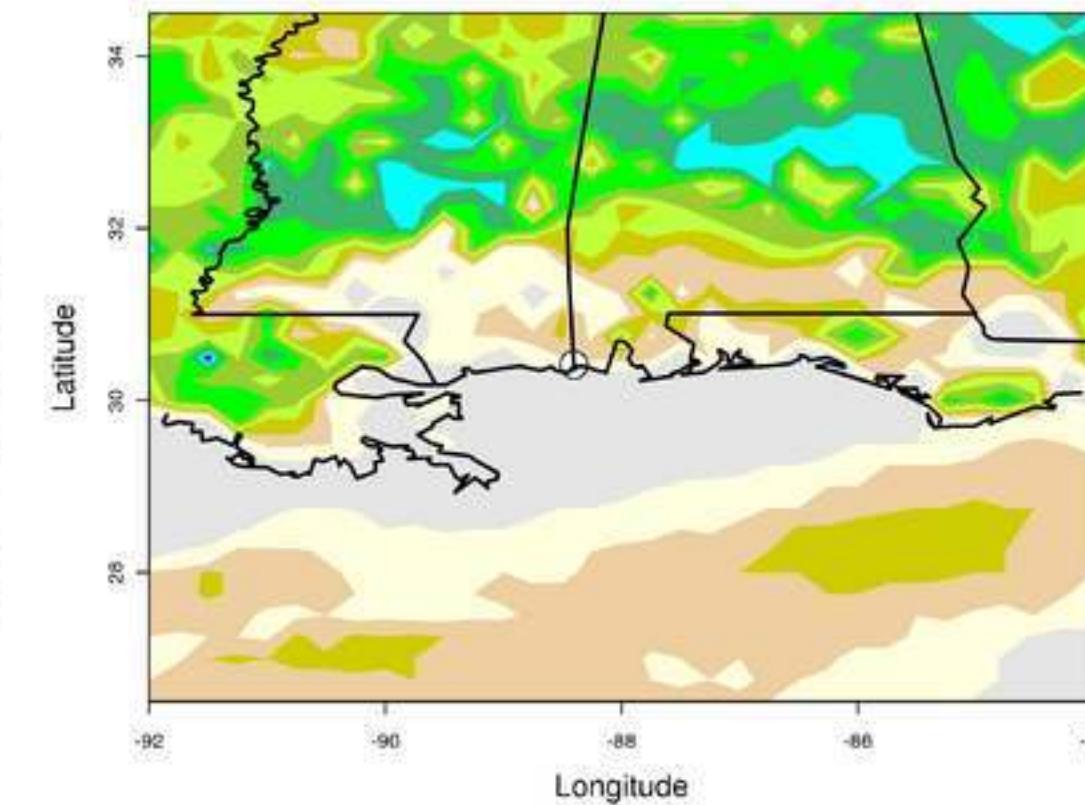
**PRSS: Surface Pressure (hPa)**



**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**

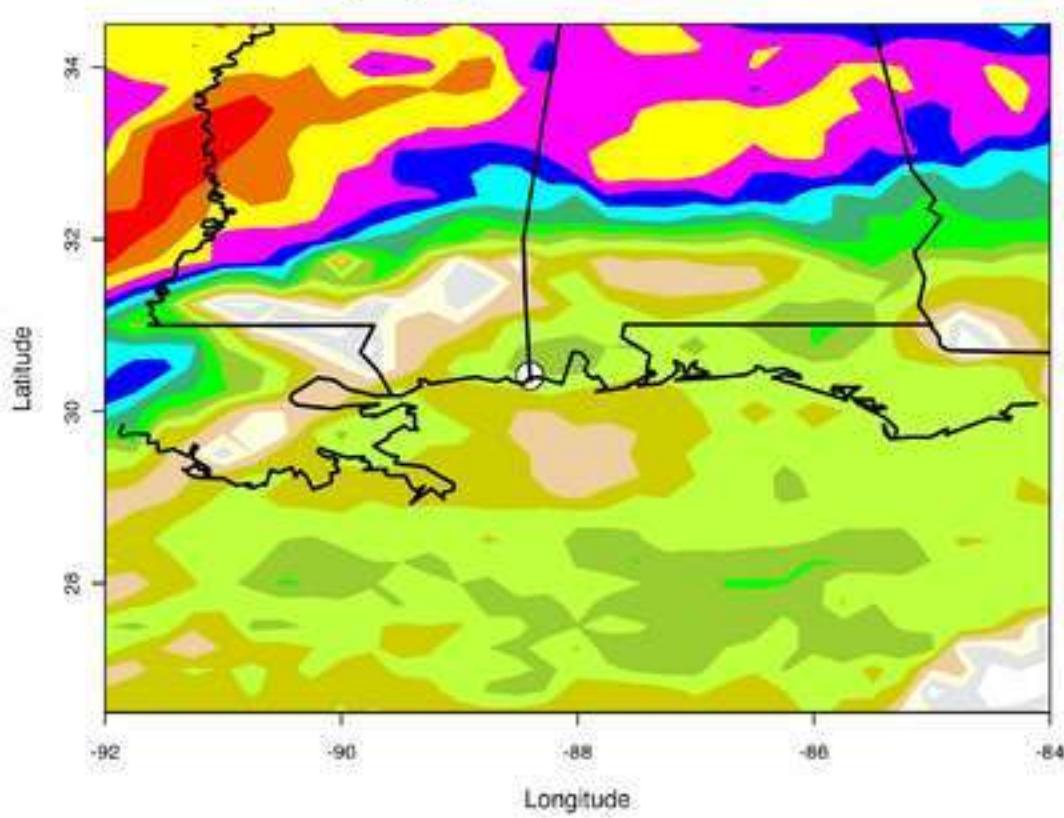


**USTR: Friction Velocity (m/sec)**

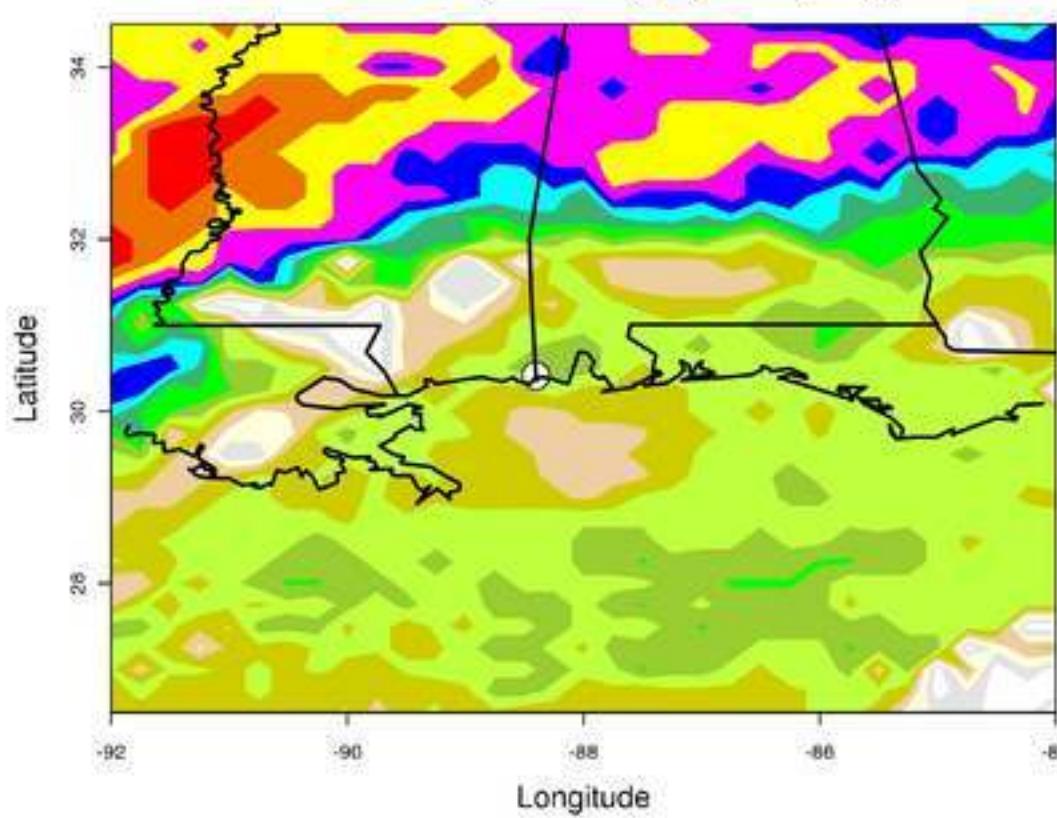


**FORECAST for 2010\_08\_12, local hour = 13**

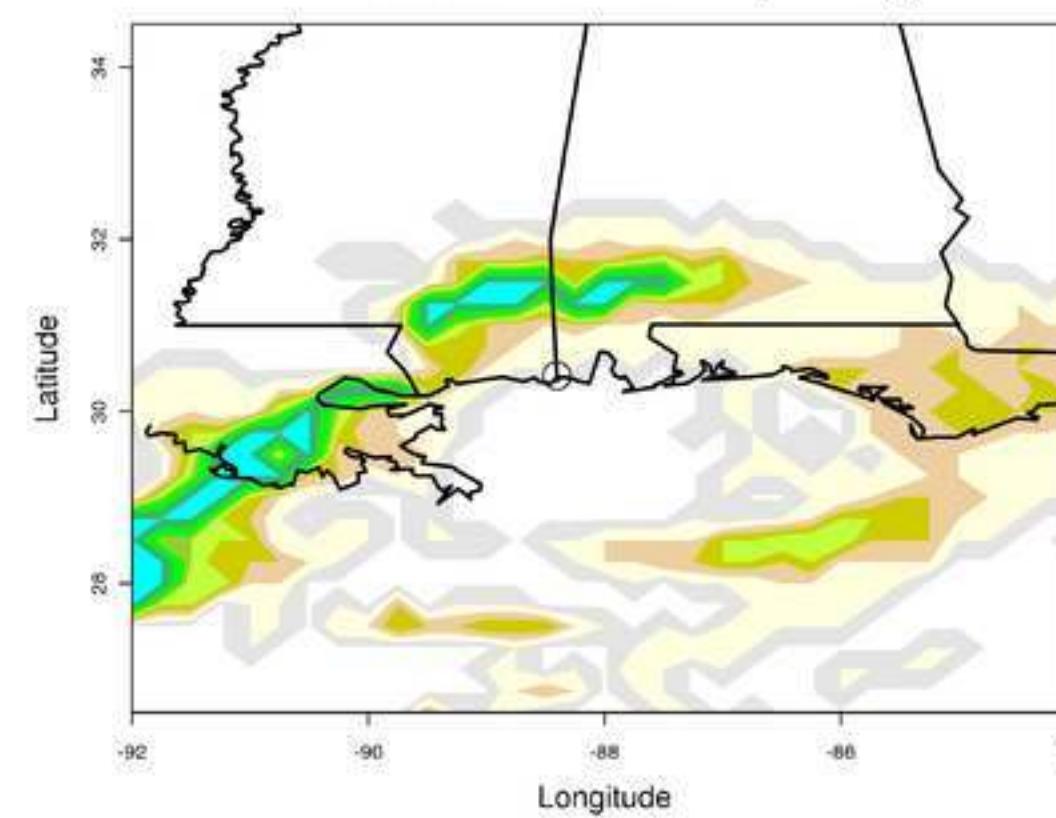
Mixing Heights (m) Estimated with the HYSPLIT Model



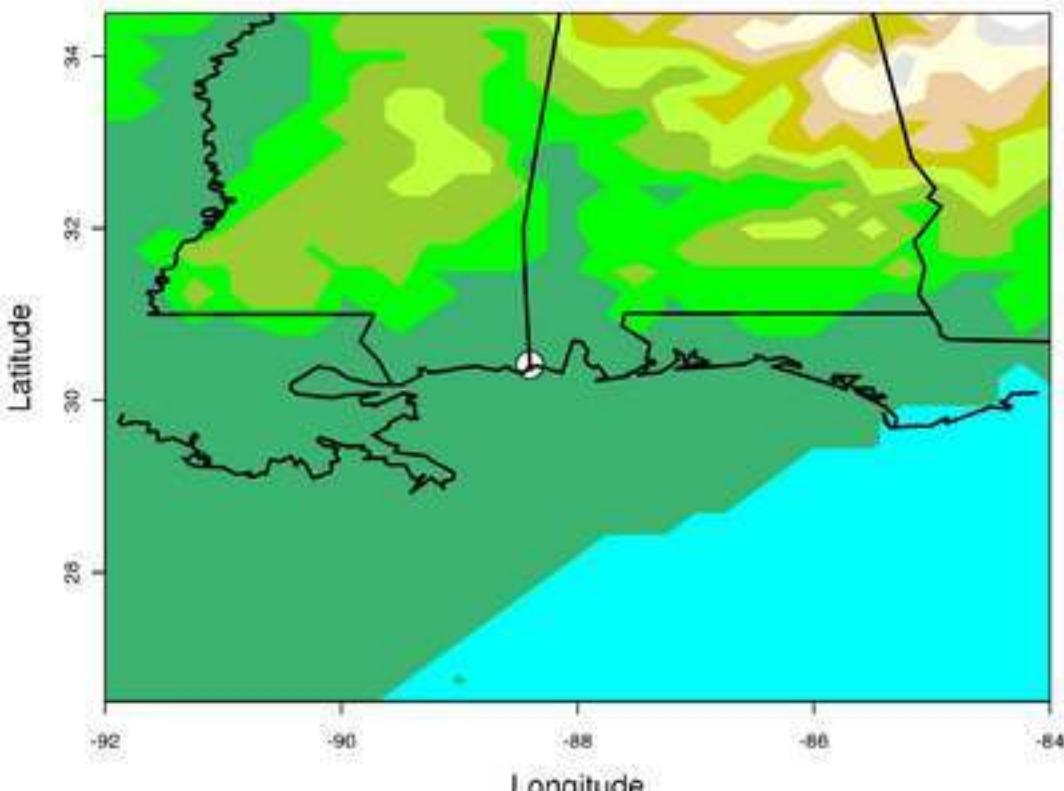
**PBLH: Planetary Boundary Layer Height (m)**



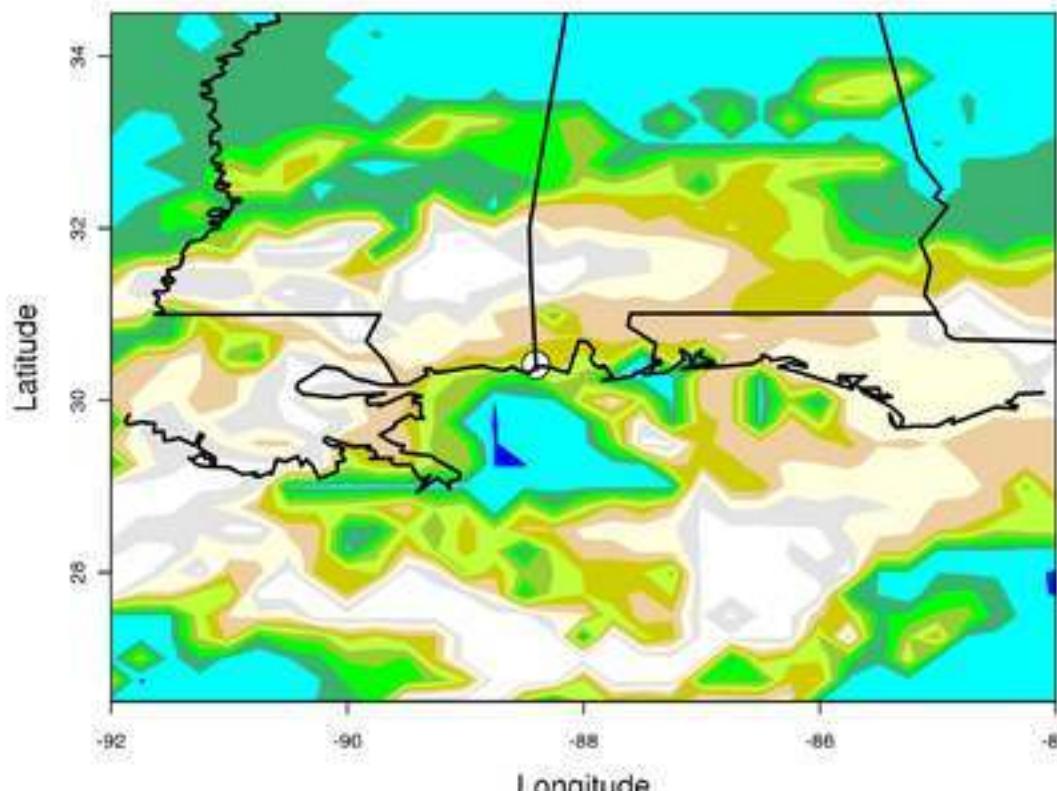
**TPP3: 3-hour Accumulated Precipitation (m)**



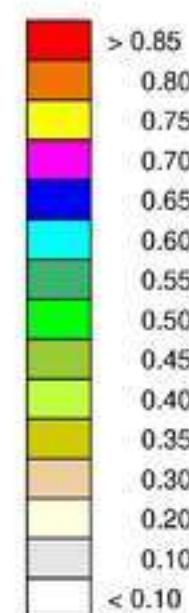
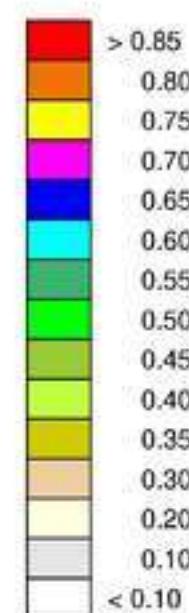
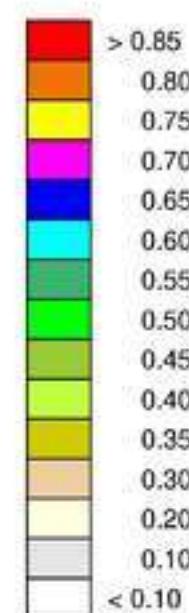
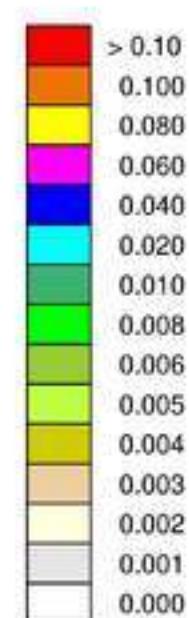
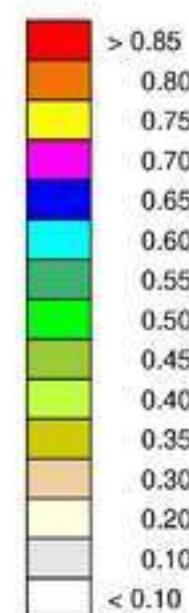
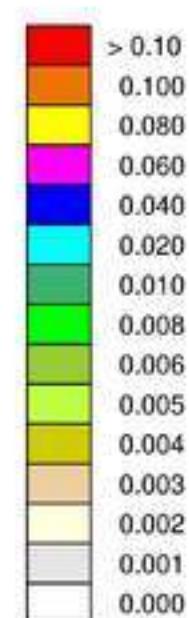
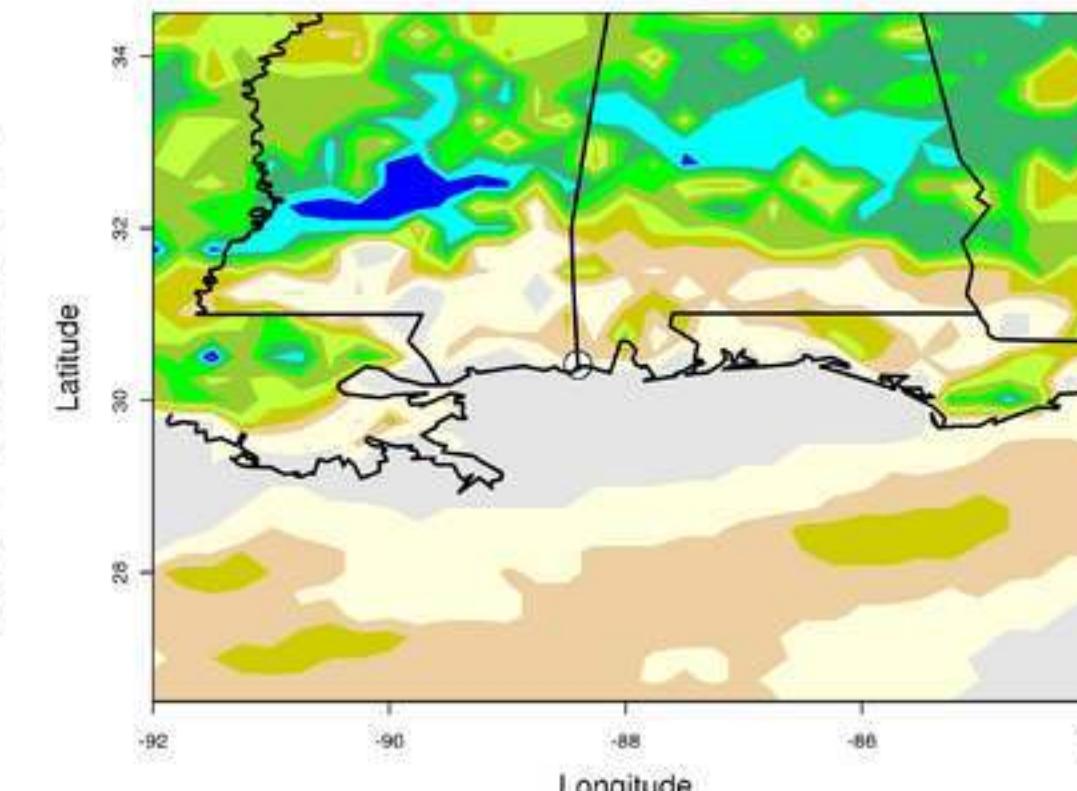
**PRSS: Surface Pressure (hPa)**



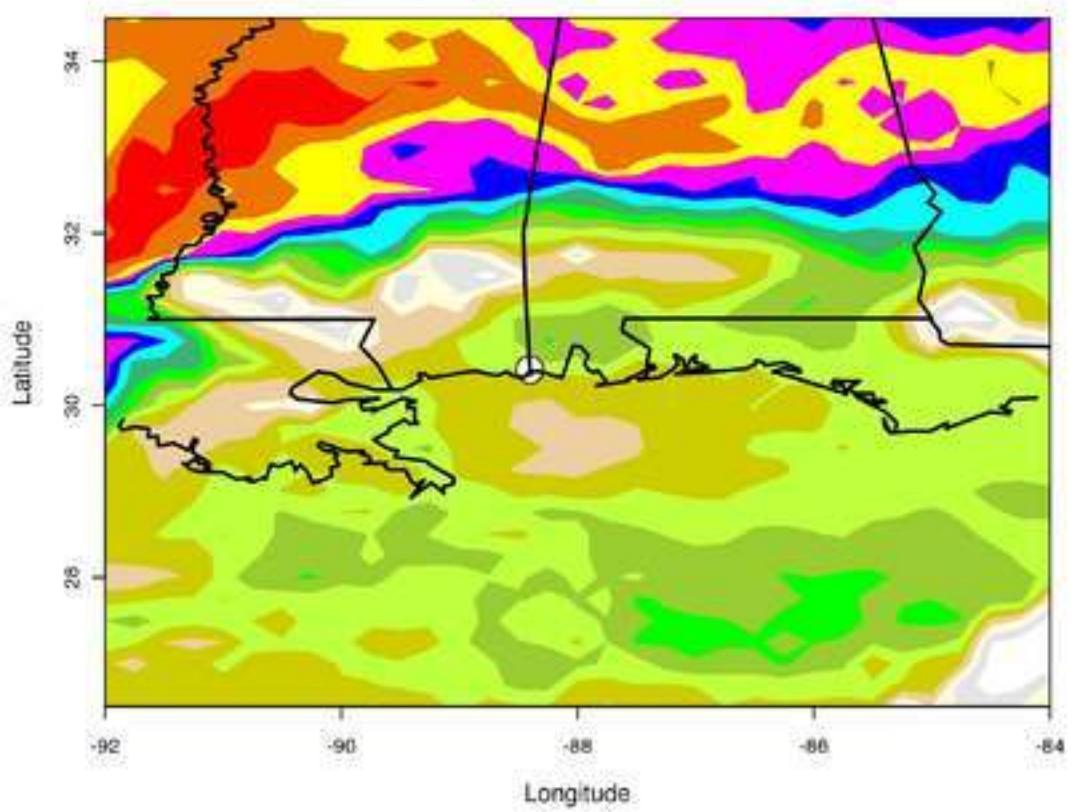
**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**



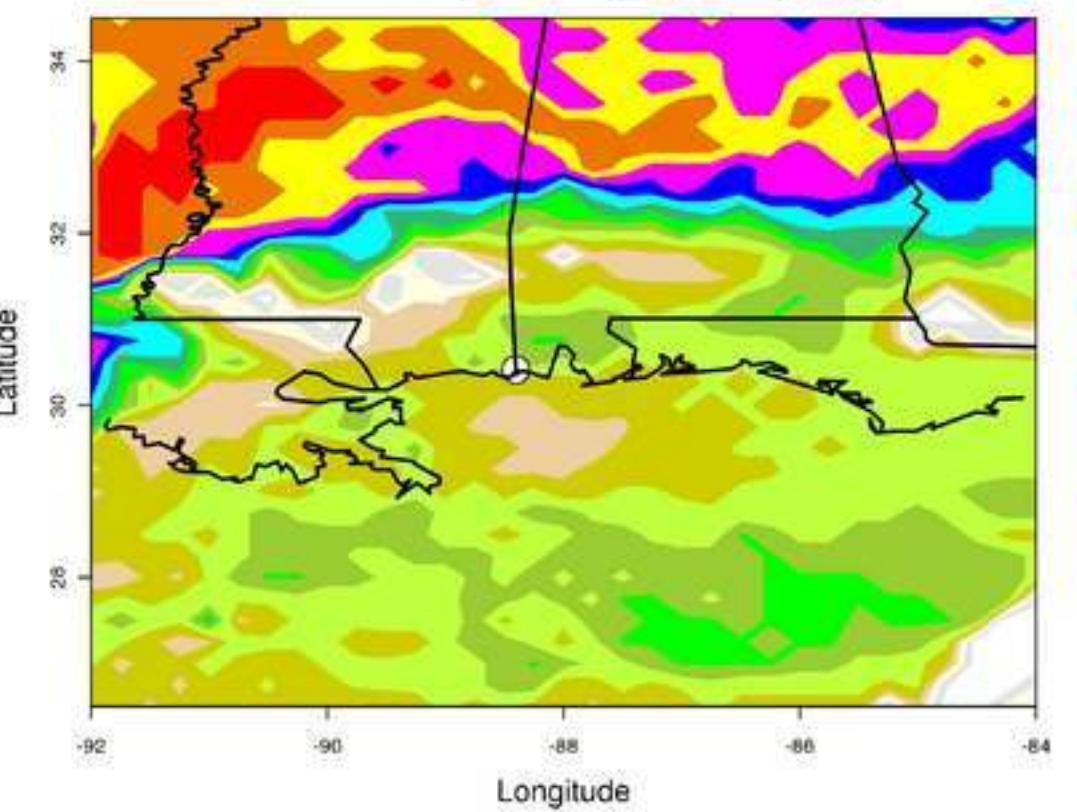
**USTR: Friction Velocity (m/sec)**



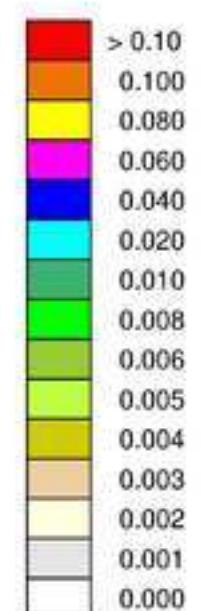
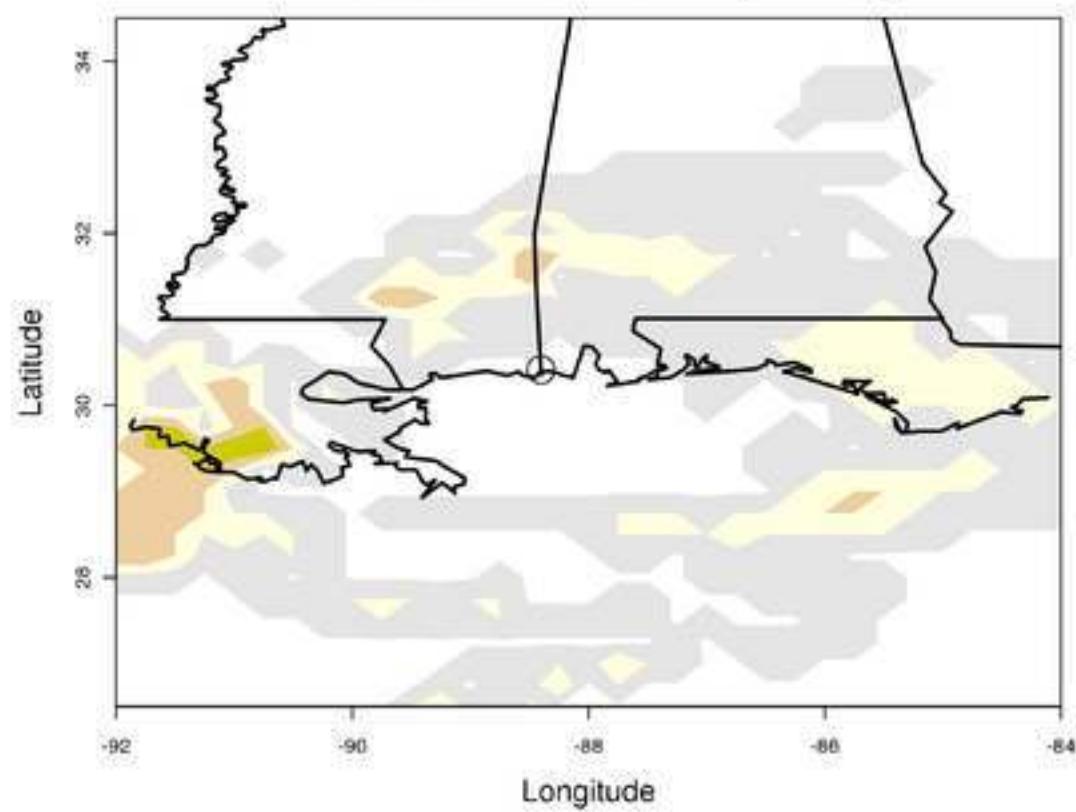
**FORECAST for 2010\_08\_12, local hour = 14**  
Mixing Heights (m) Estimated with the HYSPLIT Model



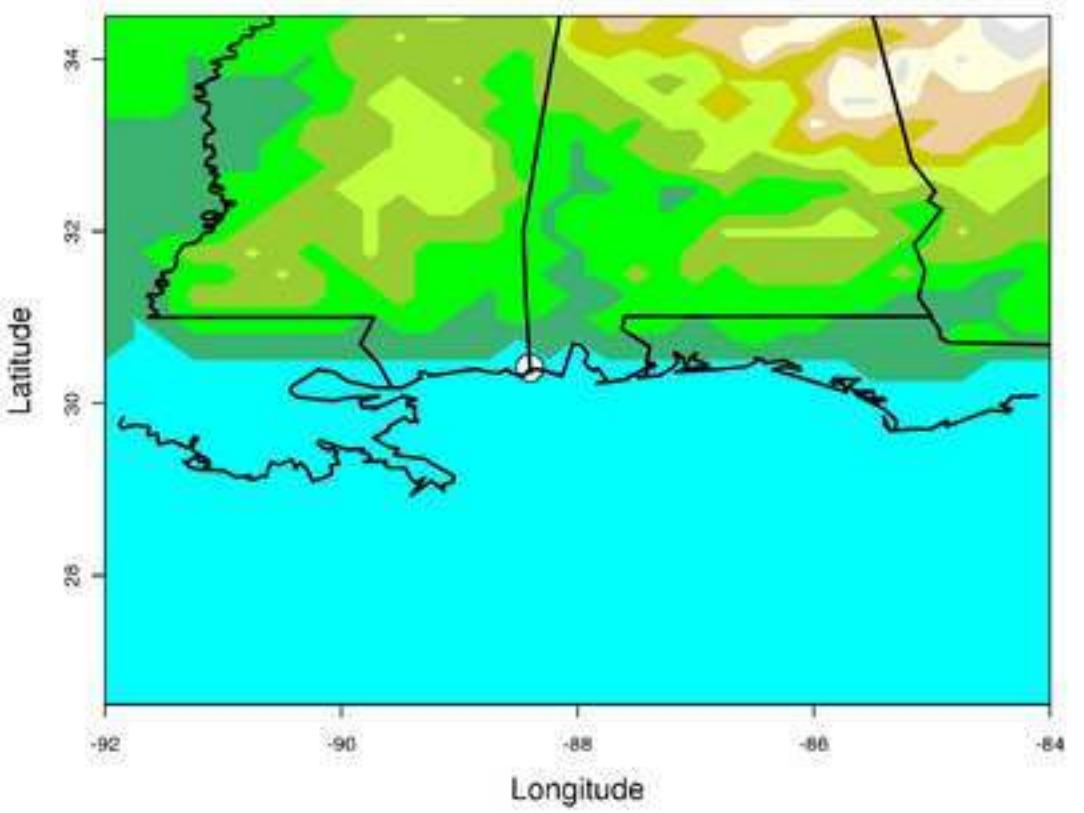
**PBLH: Planetary Boundary Layer Height (m)**



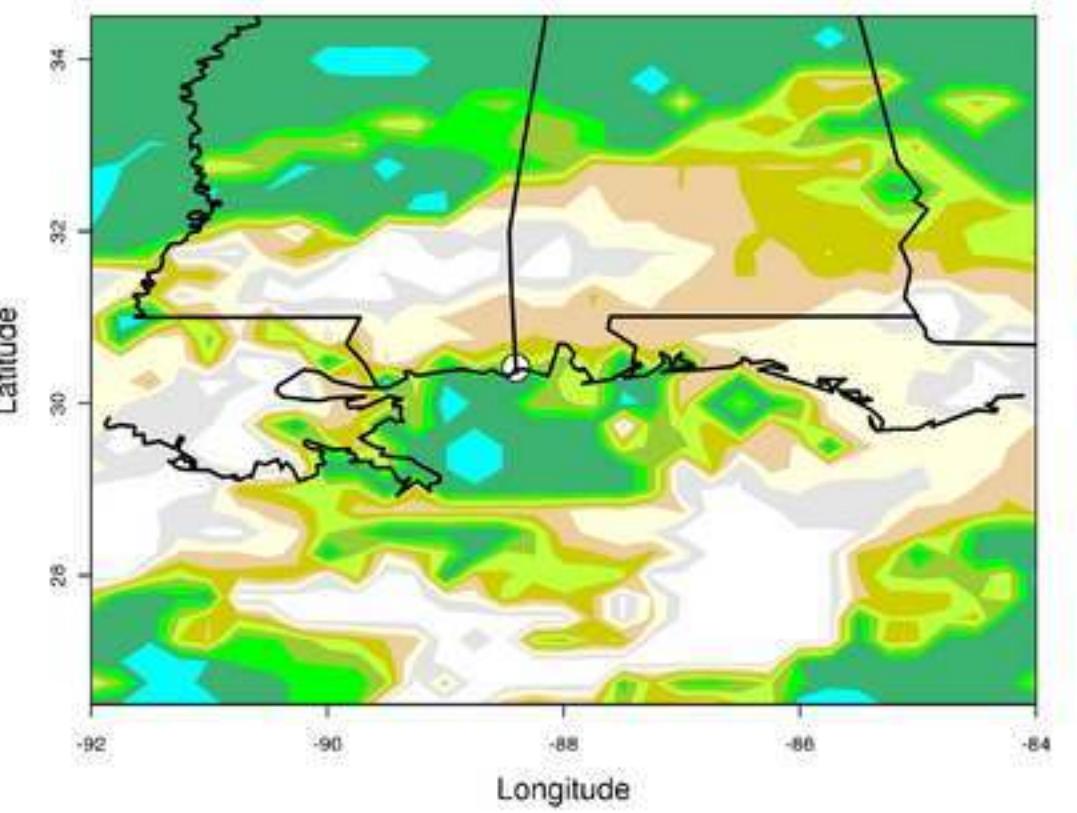
**TPP3: 3-hour Accumulated Precipitation (m)**



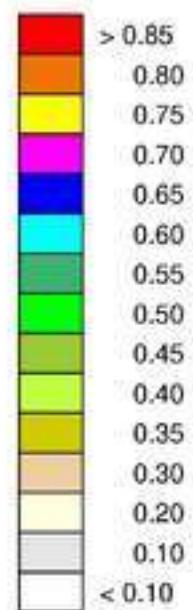
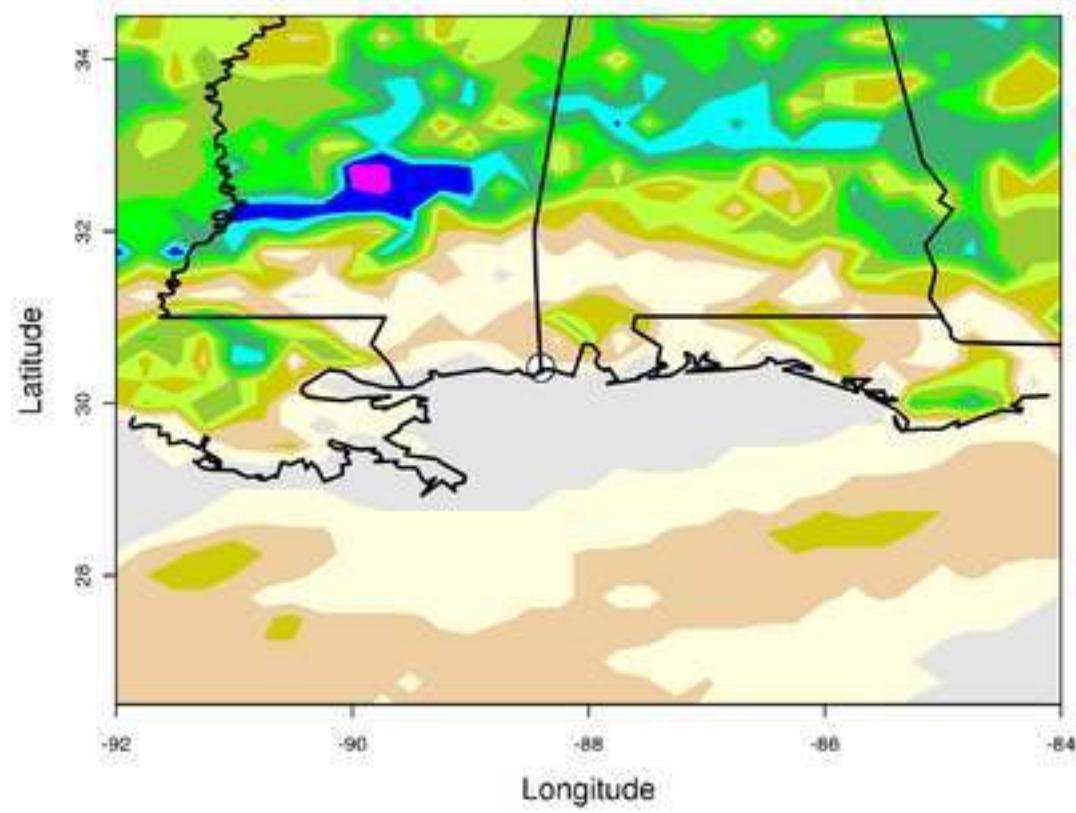
**PRSS: Surface Pressure (hPa)**



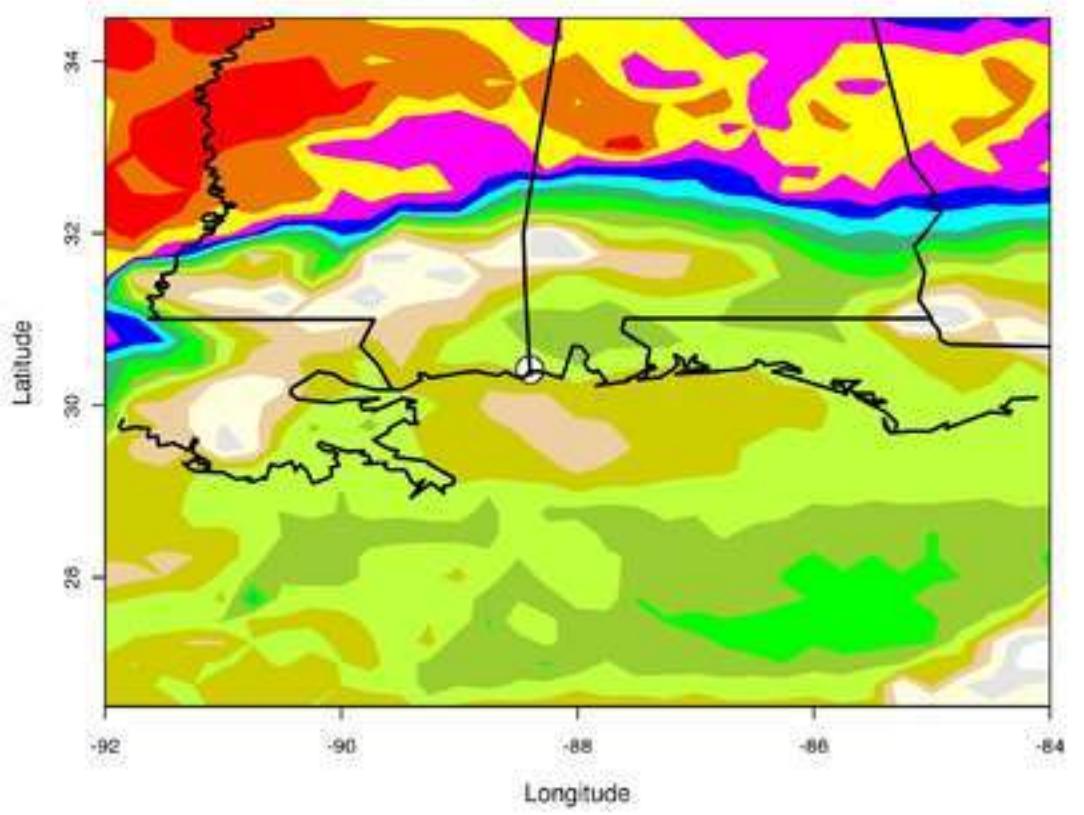
**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**



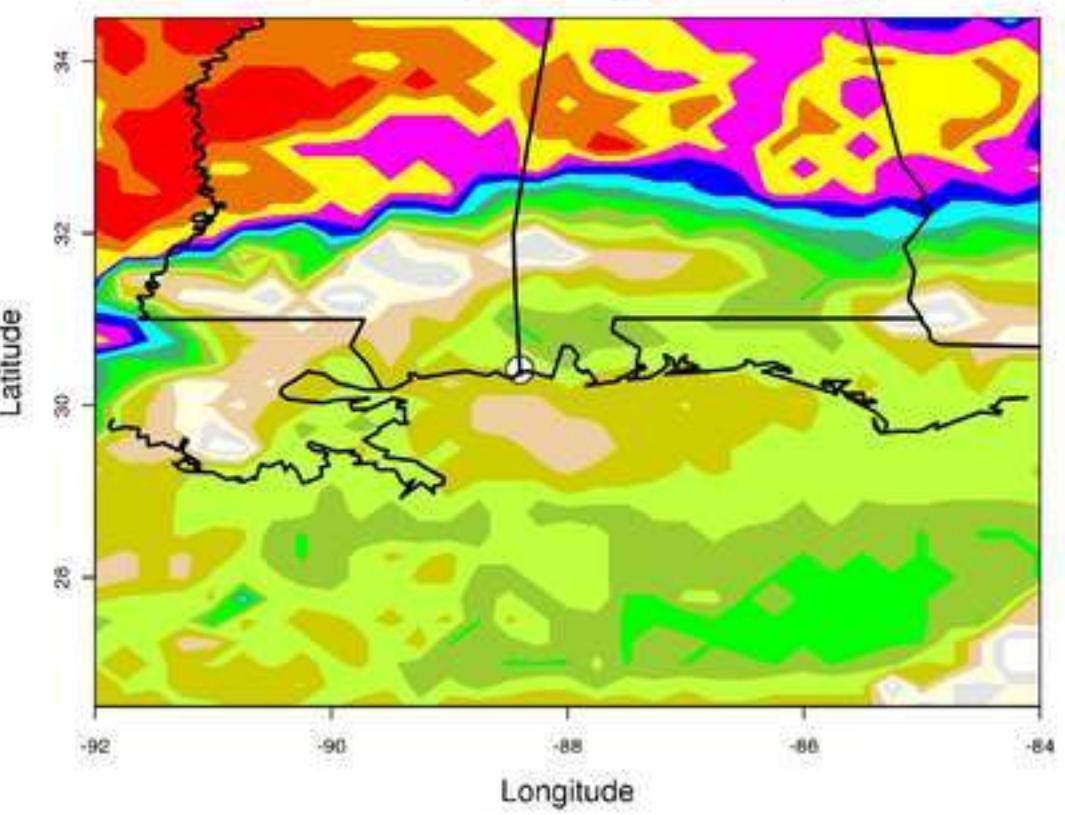
**USTR: Friction Velocity (m/sec)**



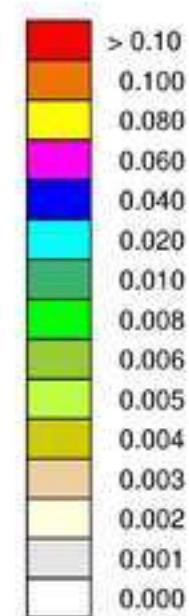
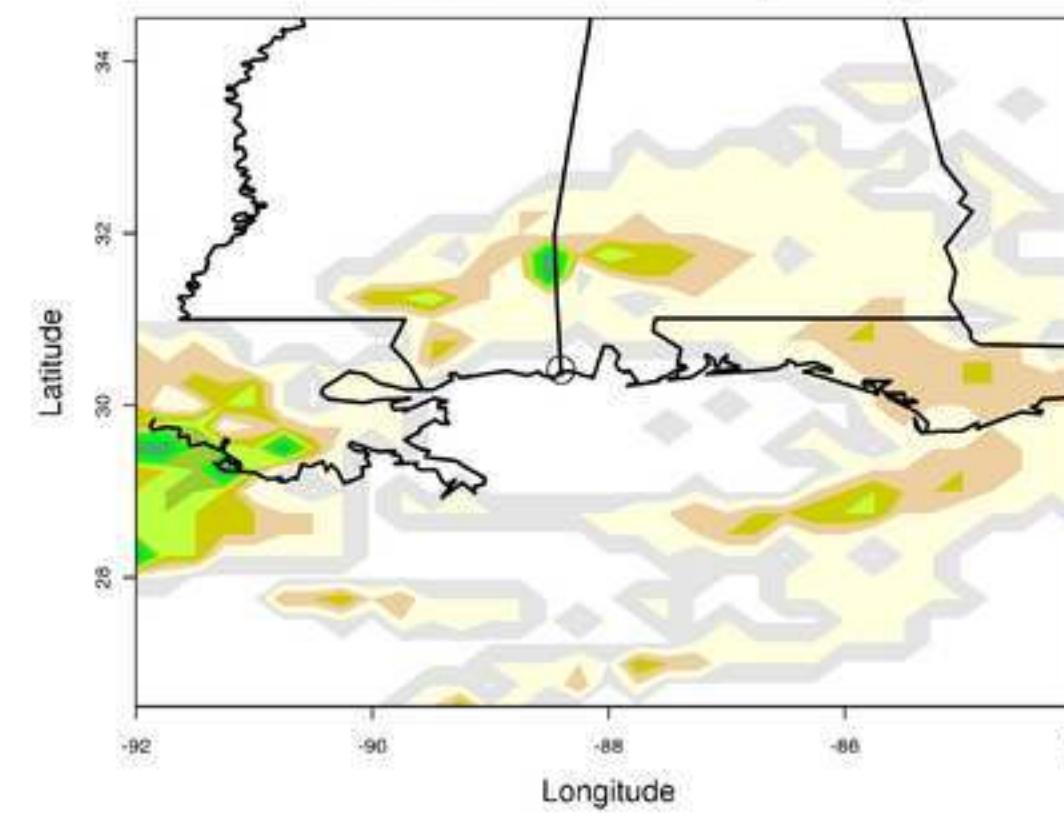
**FORECAST for 2010\_08\_12, local hour = 15**  
Mixing Heights (m) Estimated with the HYSPLIT Model



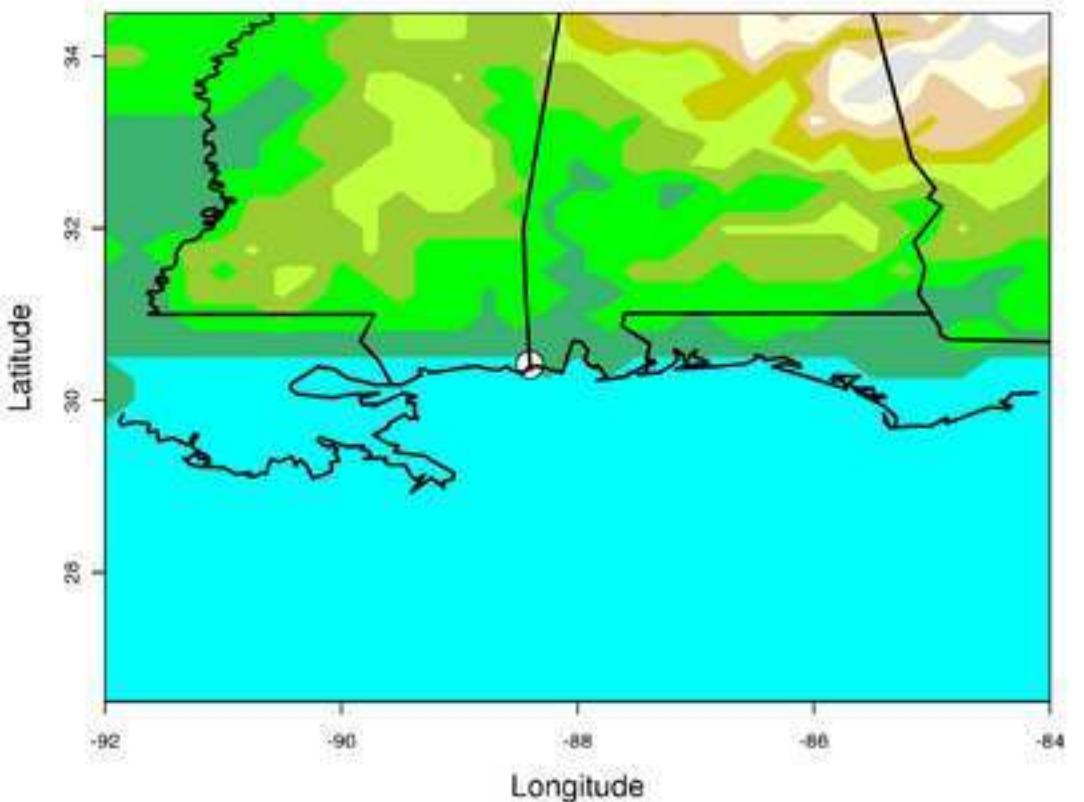
**PBLH: Planetary Boundary Layer Height (m)**



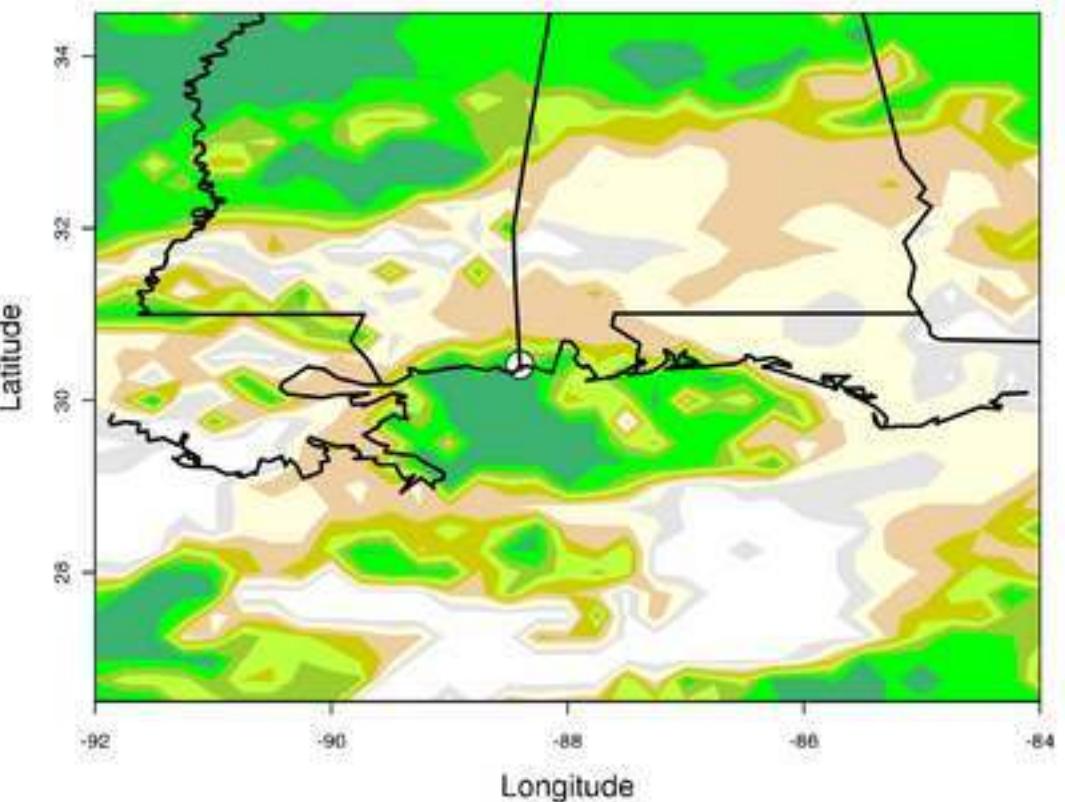
**TPP3: 3-hour Accumulated Precipitation (m)**



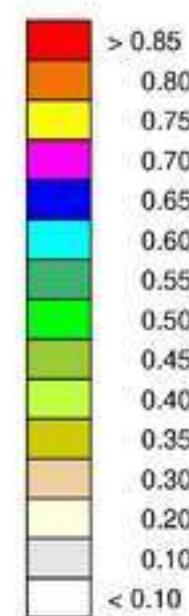
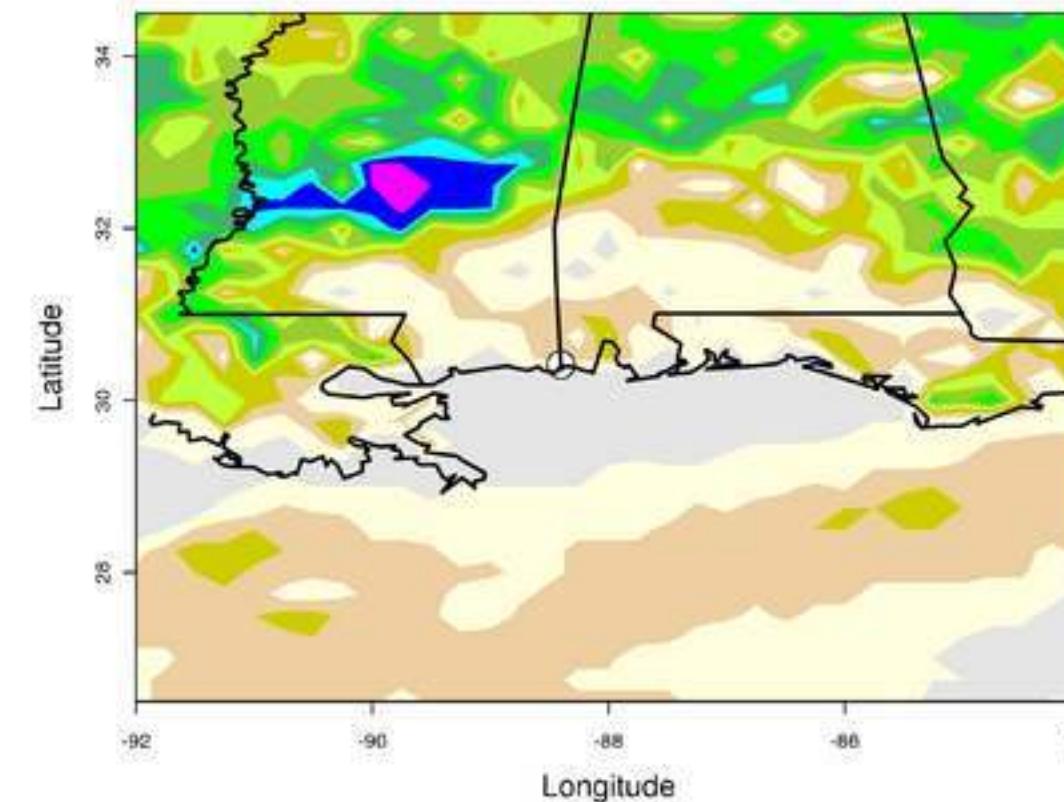
**PRSS: Surface Pressure (hPa)**



**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**

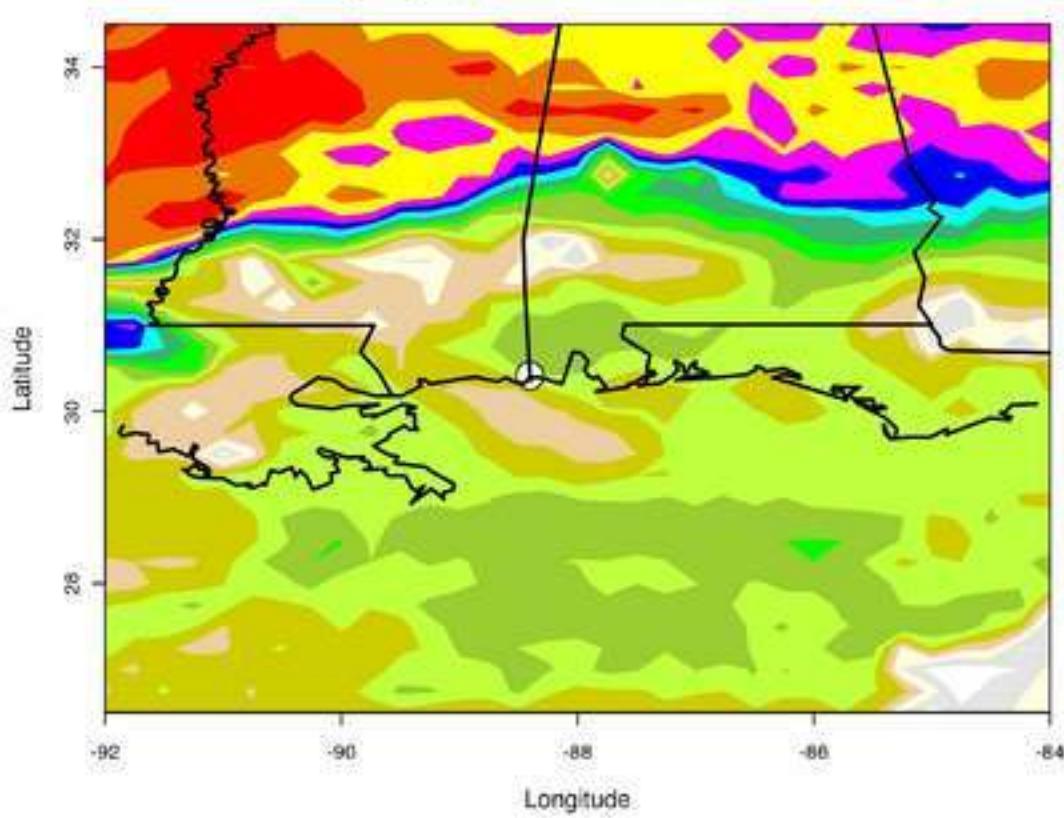


**USTR: Friction Velocity (m/sec)**

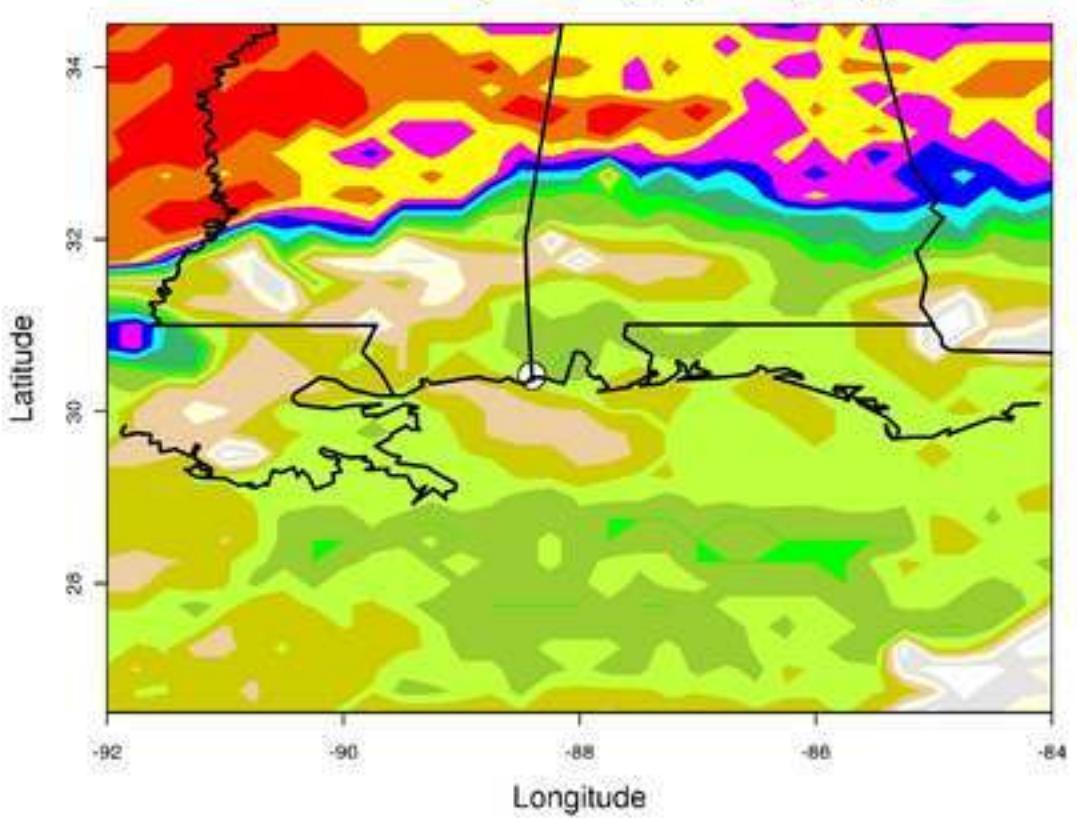


**FORECAST for 2010\_08\_12, local hour = 16**

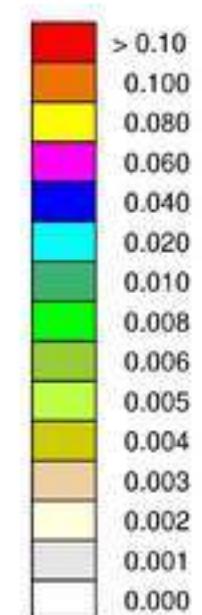
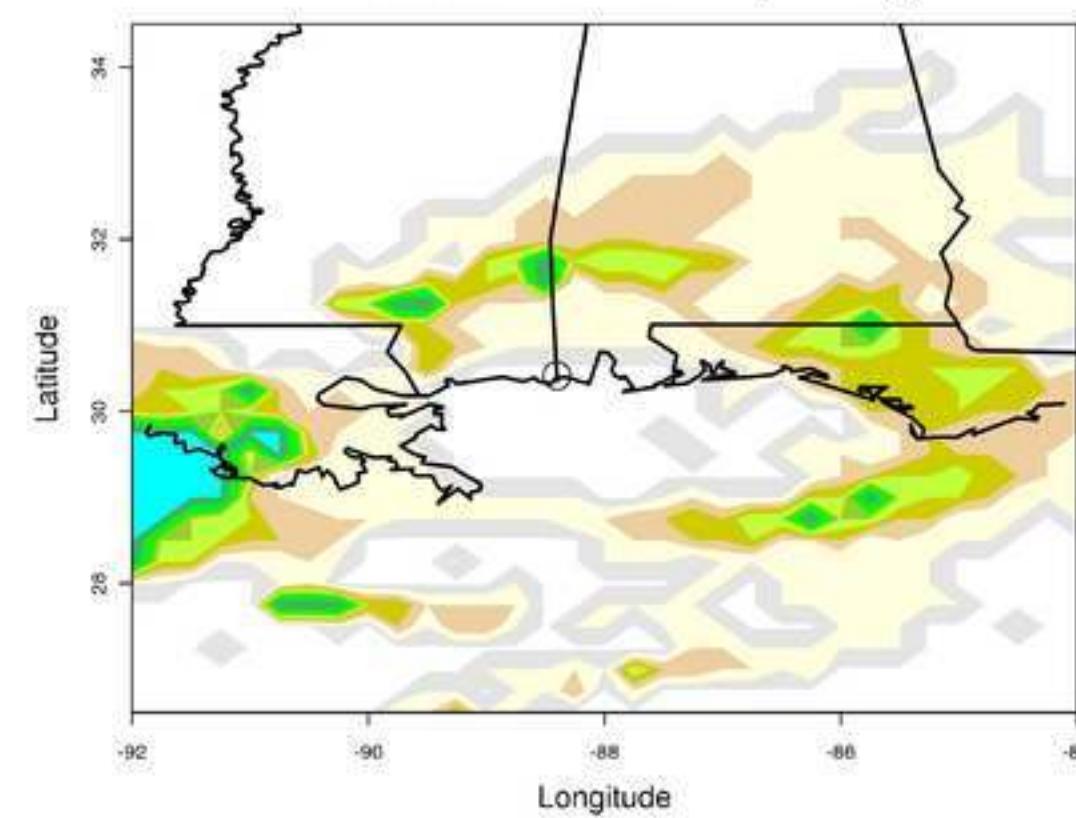
Mixing Heights (m) Estimated with the HYSPLIT Model



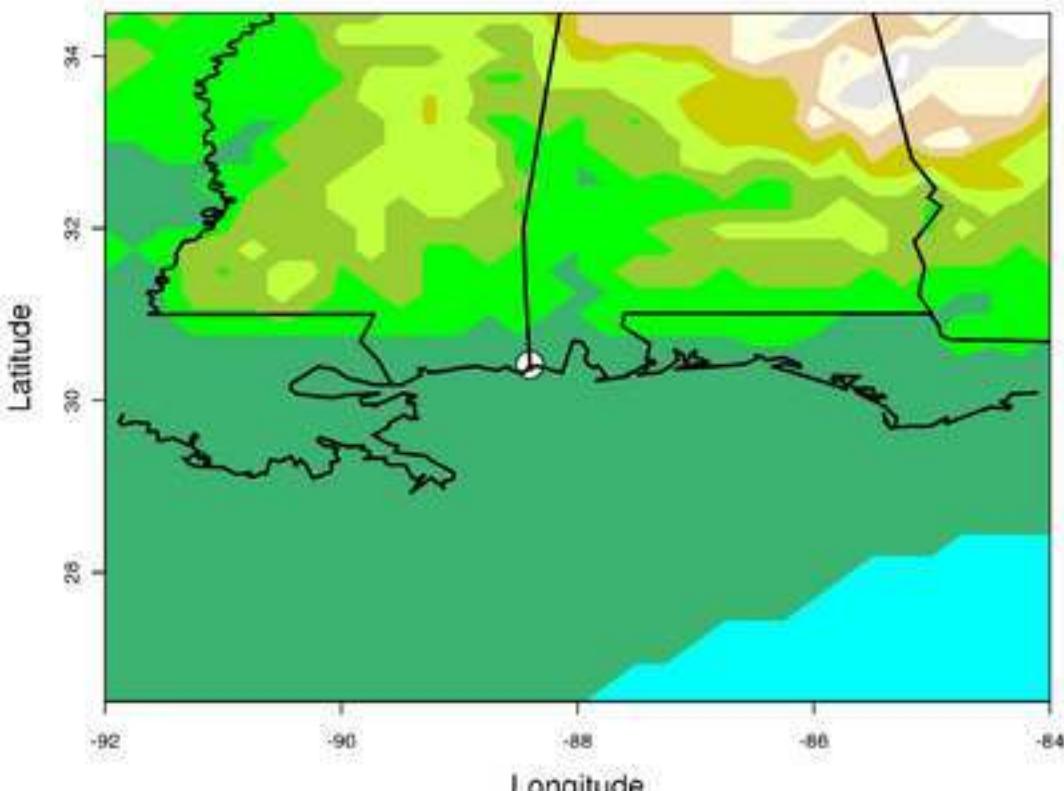
**PBLH: Planetary Boundary Layer Height (m)**



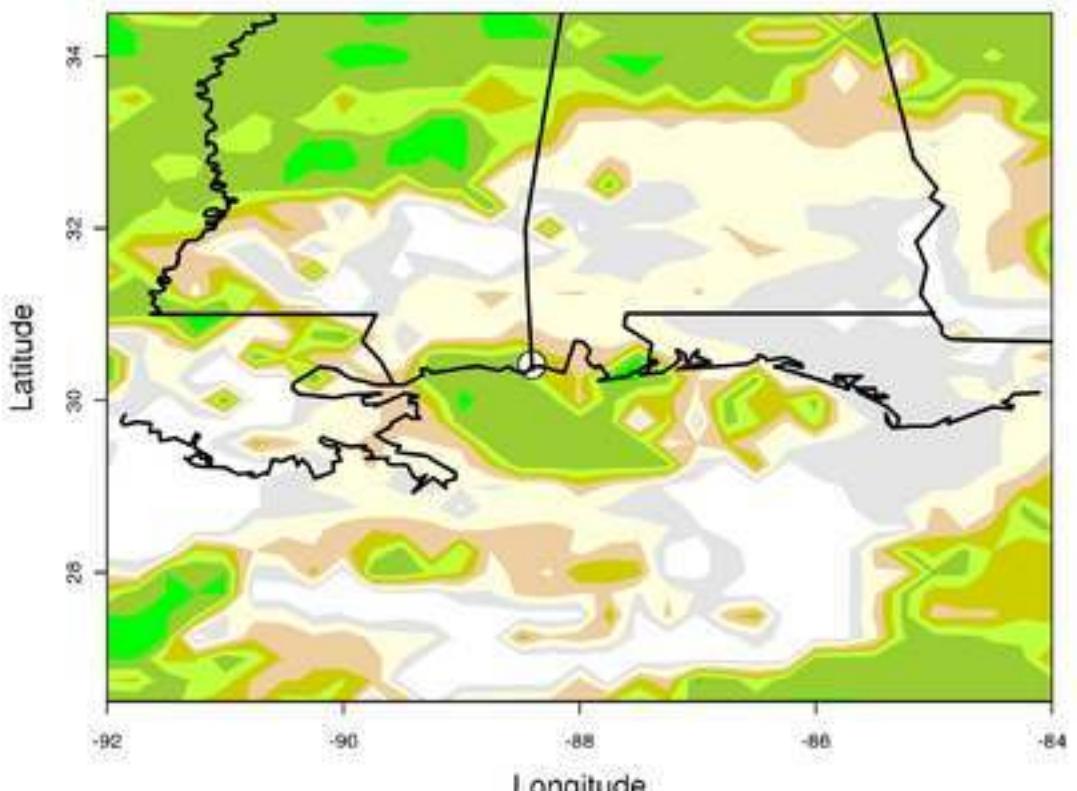
**TPP3: 3-hour Accumulated Precipitation (m)**



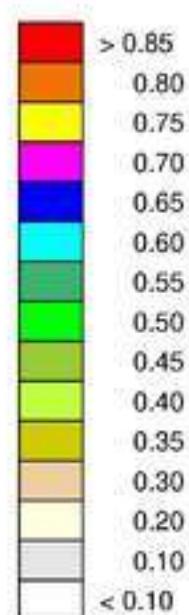
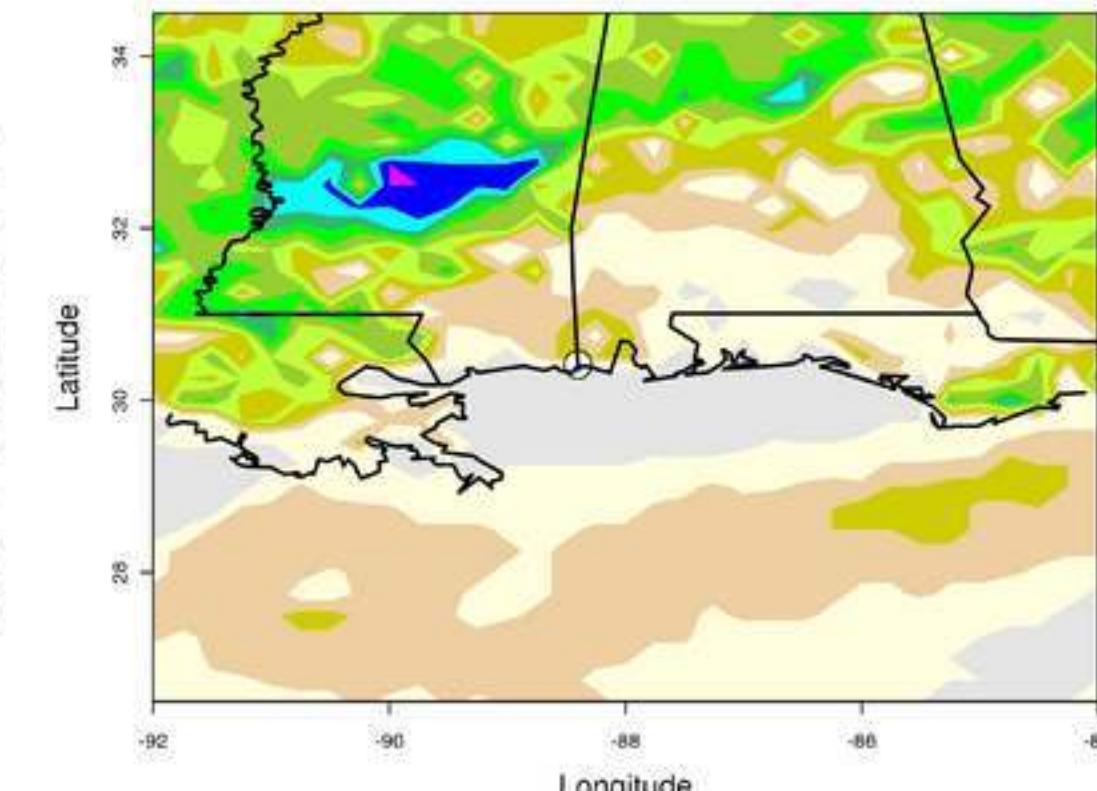
**PRSS: Surface Pressure (hPa)**



**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**

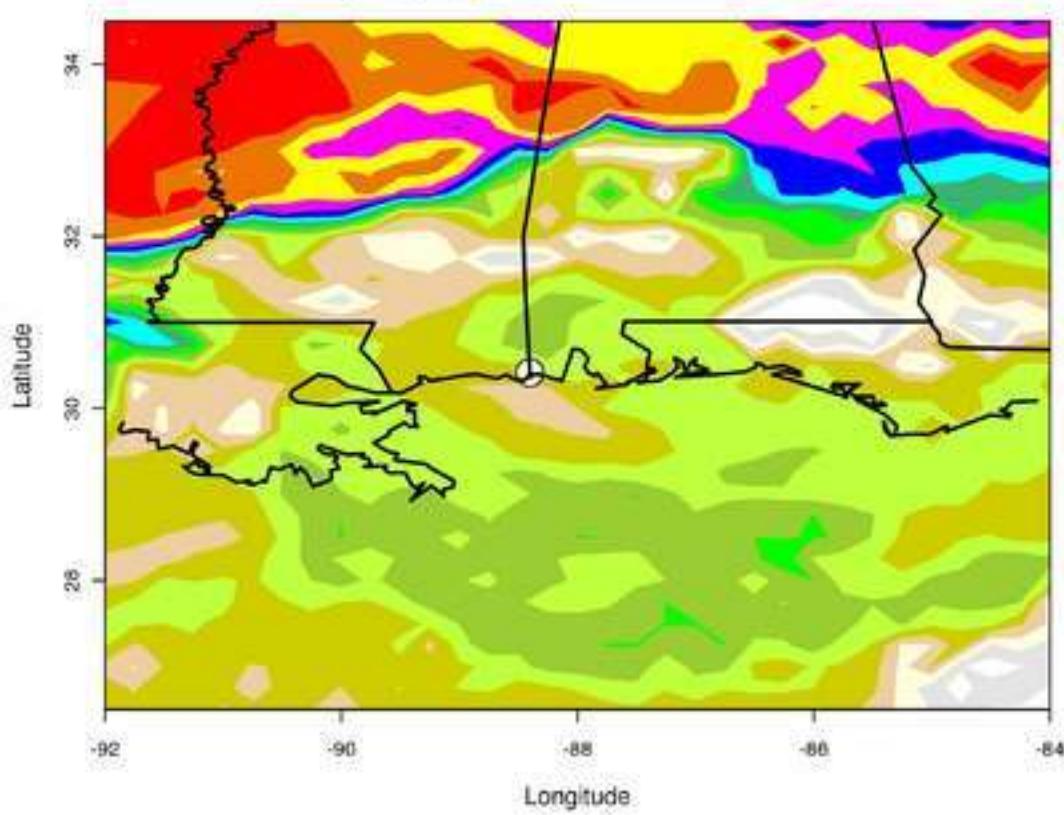


**USTR: Friction Velocity (m/sec)**

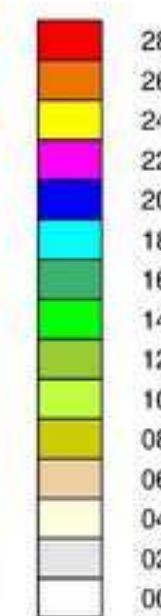
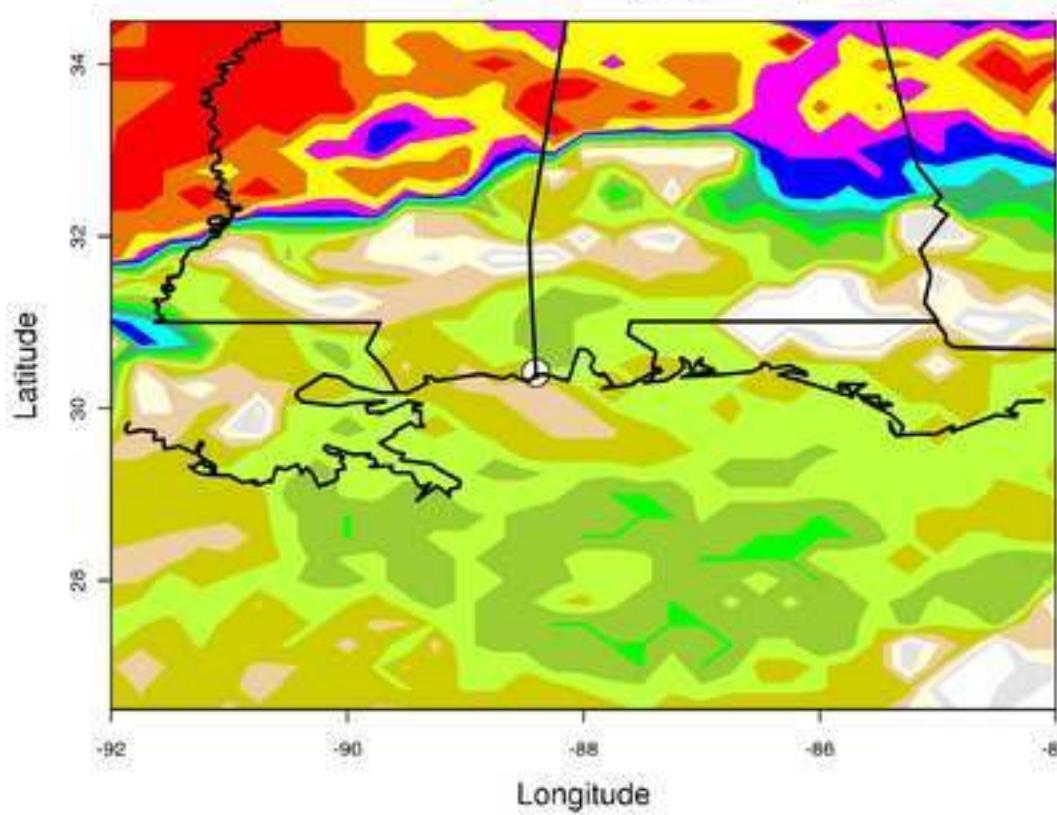


**FORECAST for 2010\_08\_12, local hour = 17**

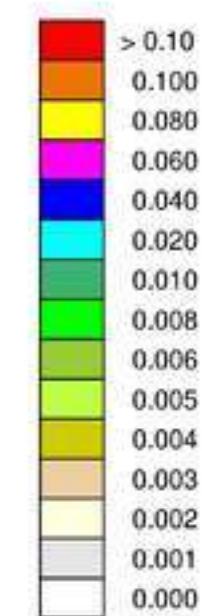
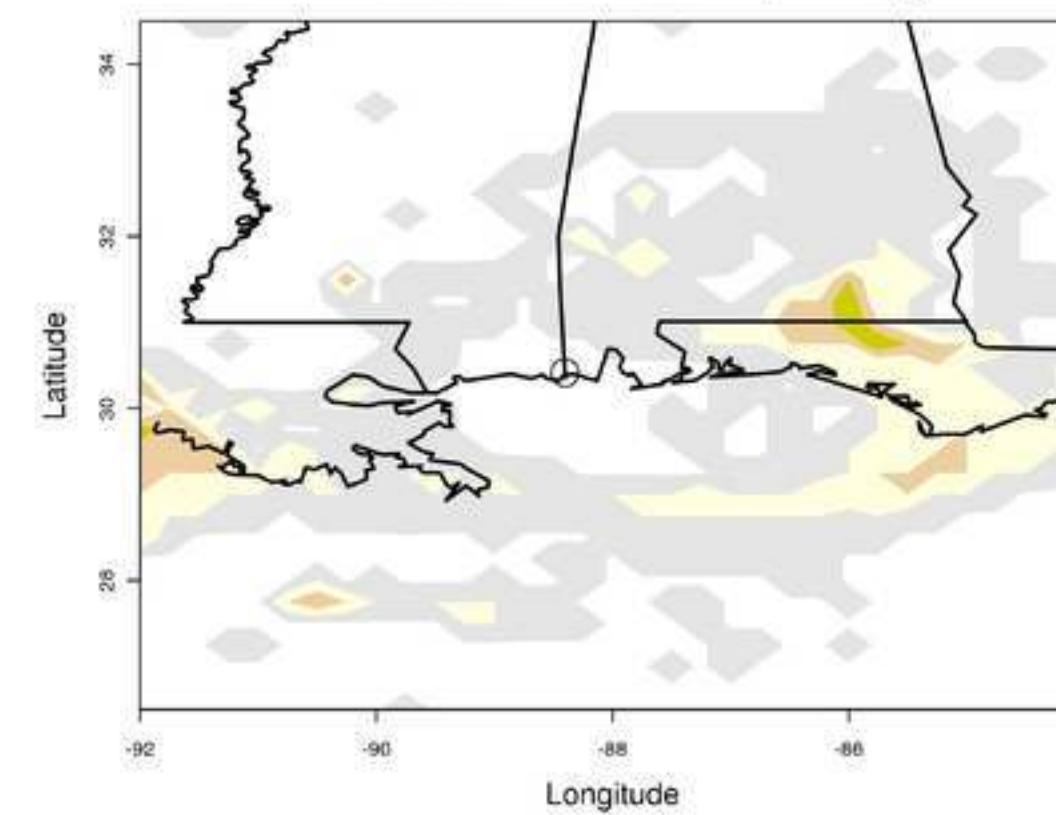
Mixing Heights (m) Estimated with the HYSPLIT Model



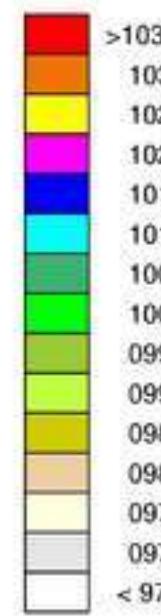
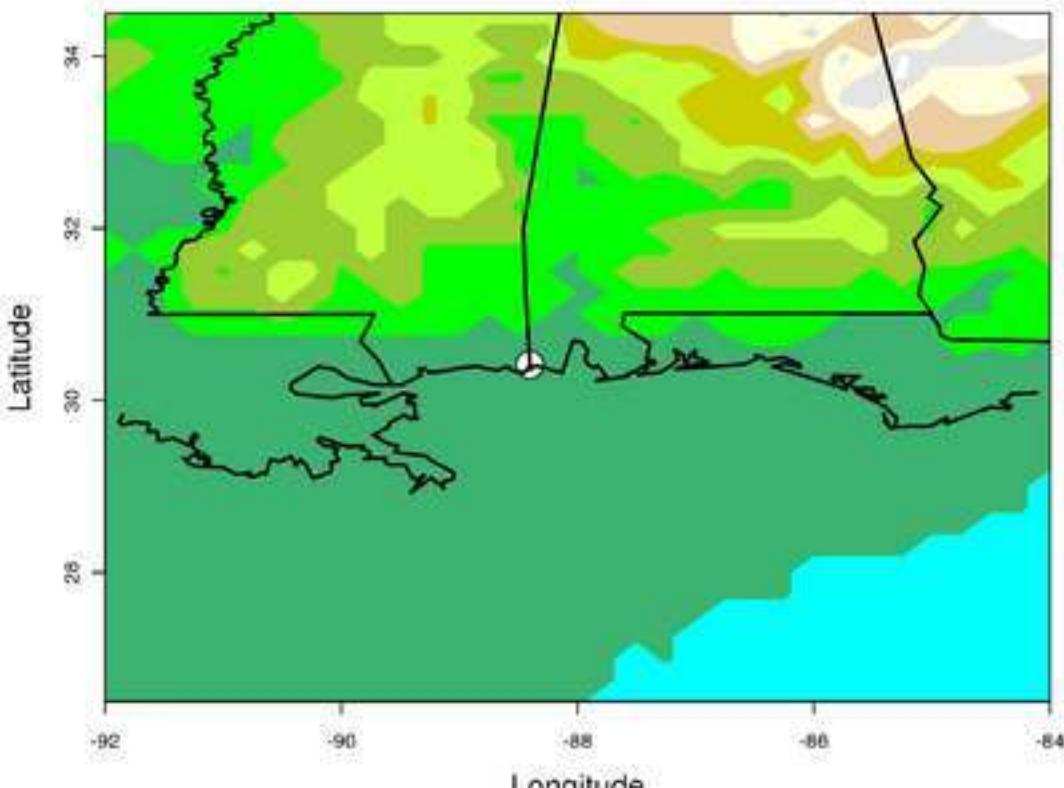
**PBLH: Planetary Boundary Layer Height (m)**



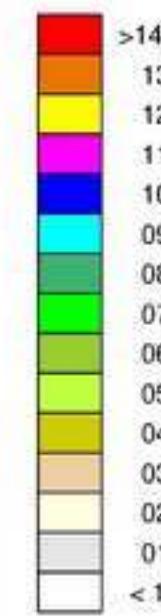
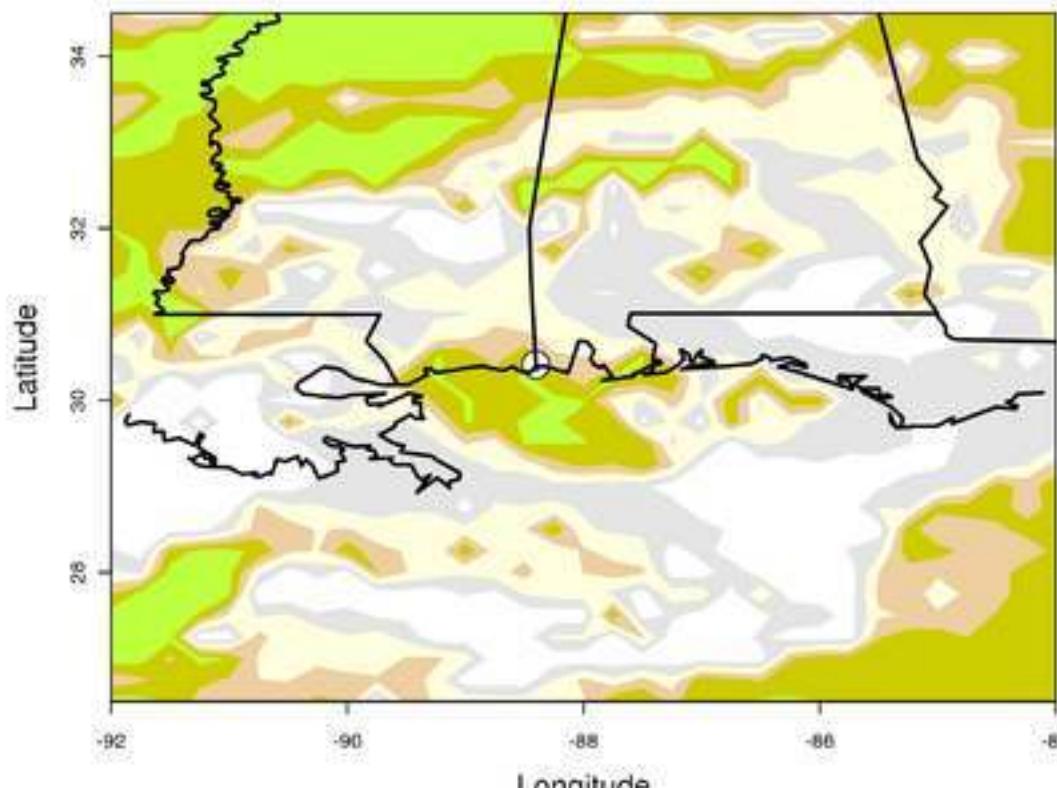
**TPP3: 3-hour Accumulated Precipitation (m)**



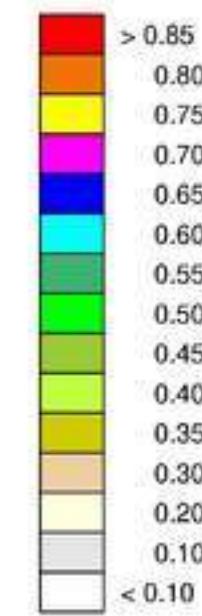
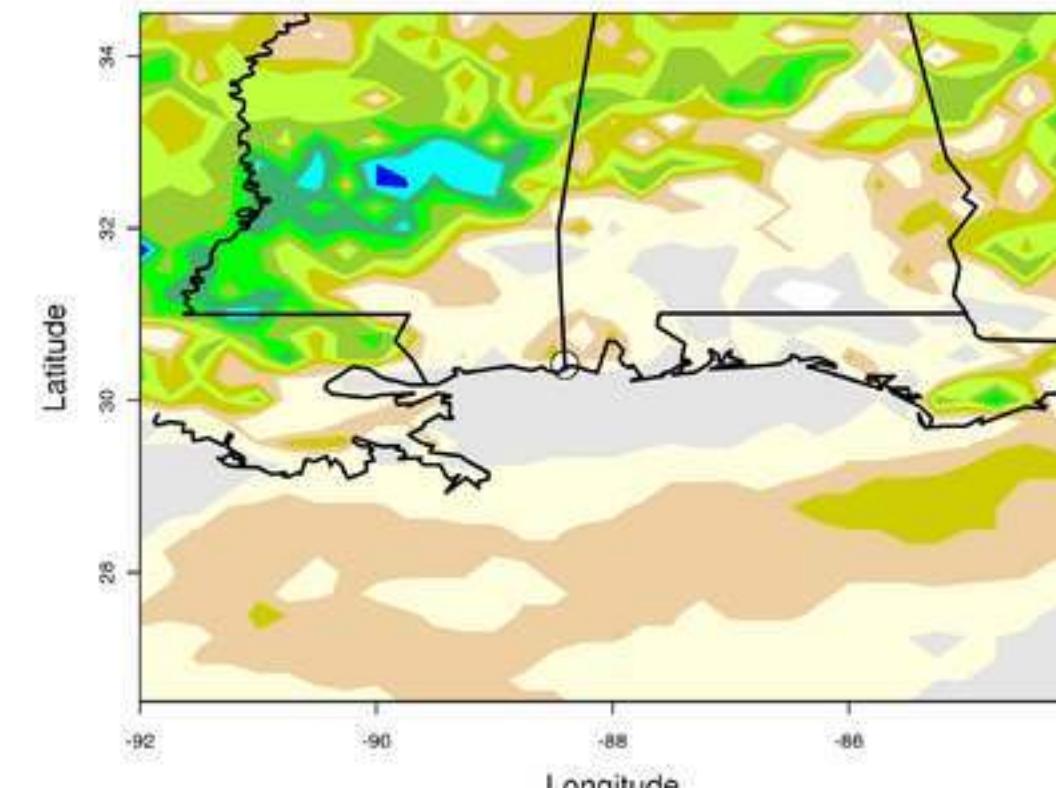
**PRSS: Surface Pressure (hPa)**



**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**

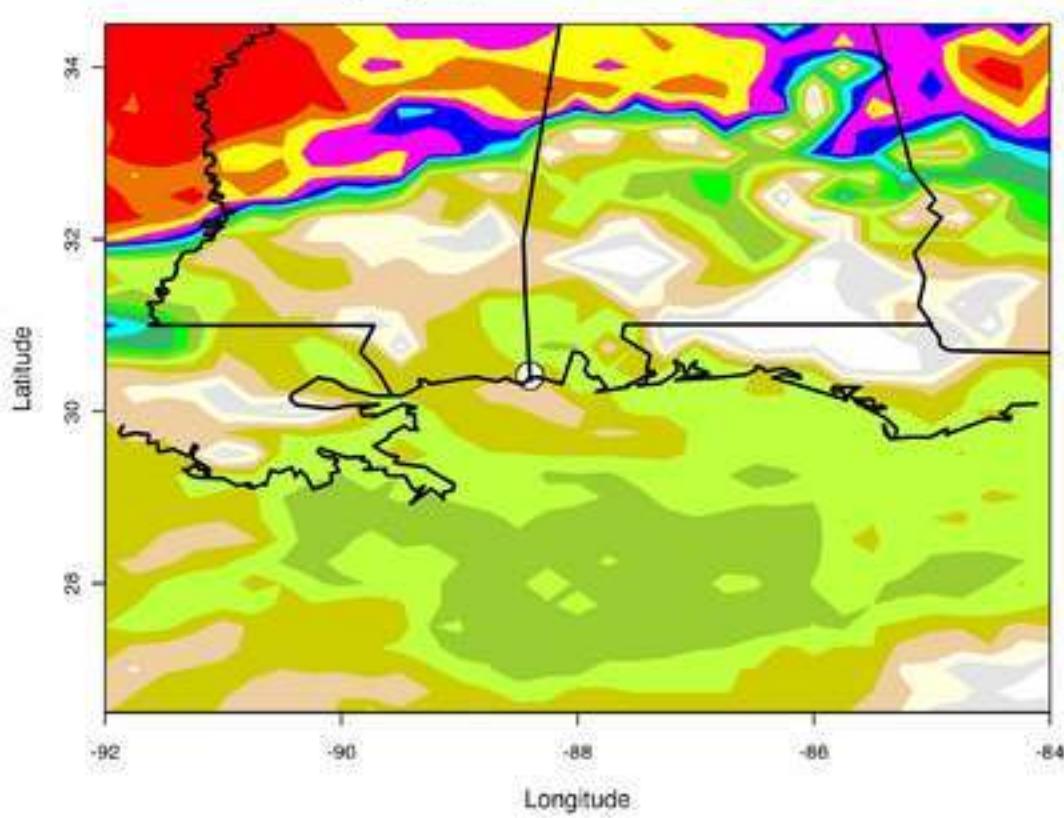


**USTR: Friction Velocity (m/sec)**

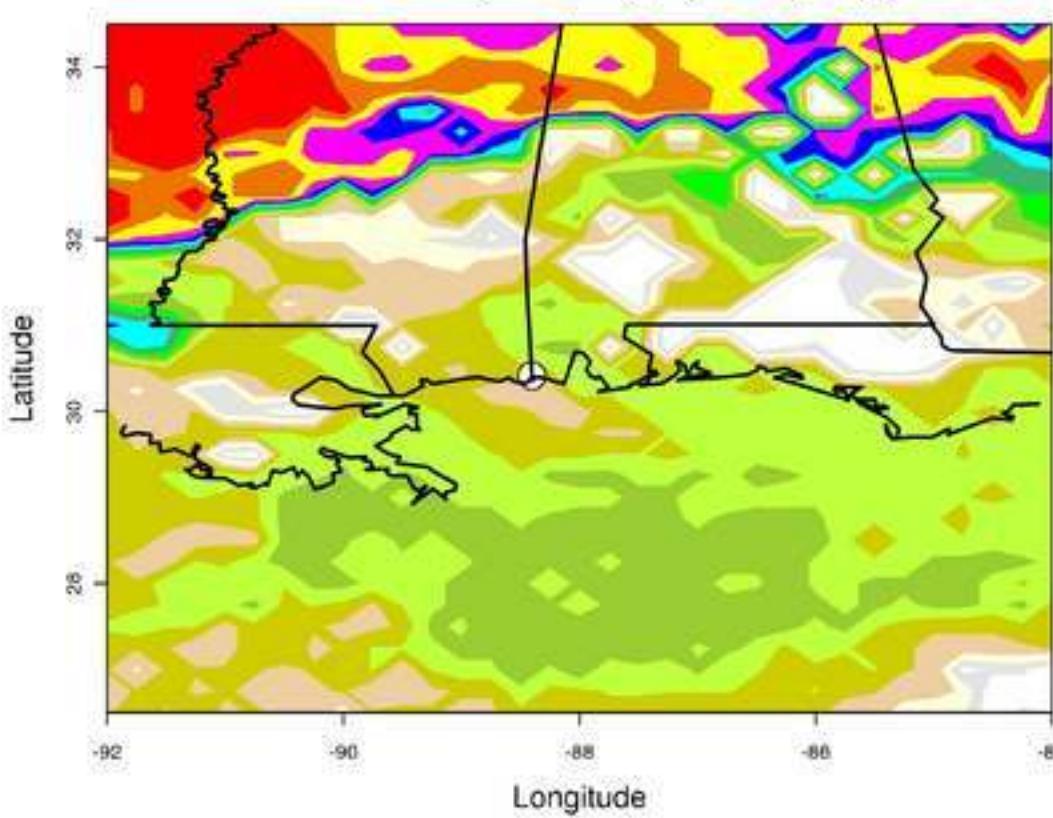


**FORECAST for 2010\_08\_12, local hour = 18**

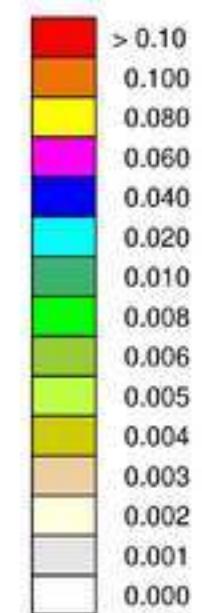
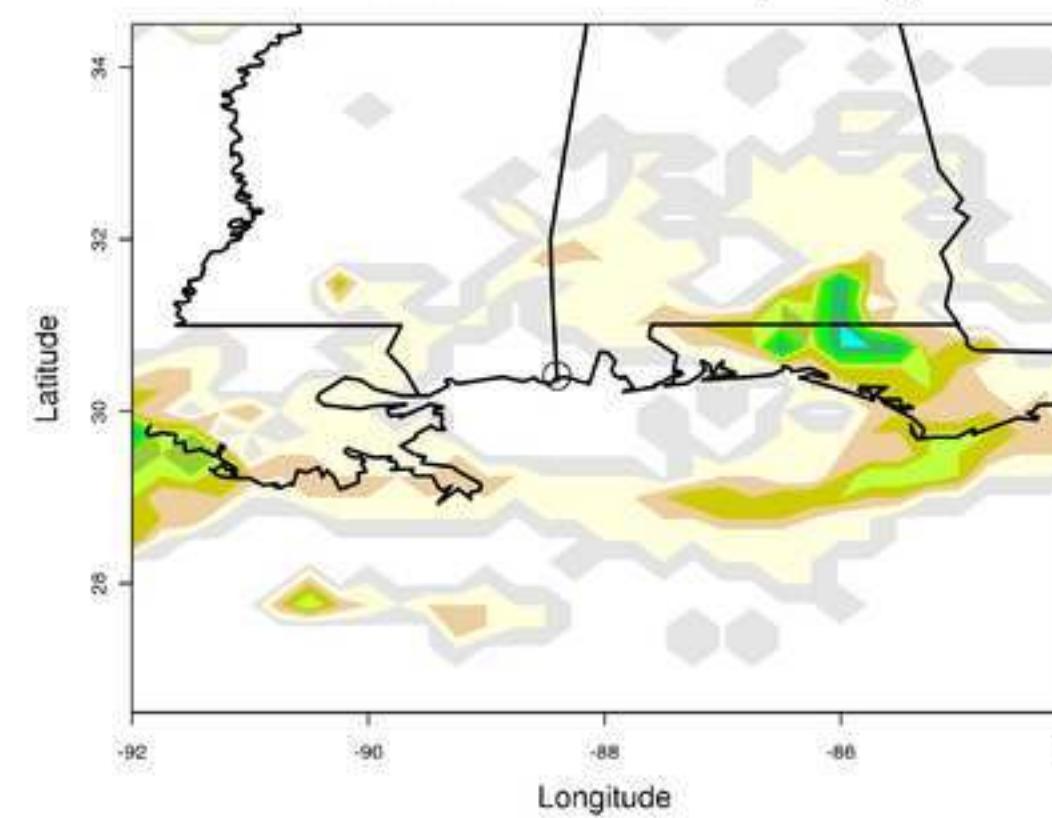
Mixing Heights (m) Estimated with the HYSPLIT Model



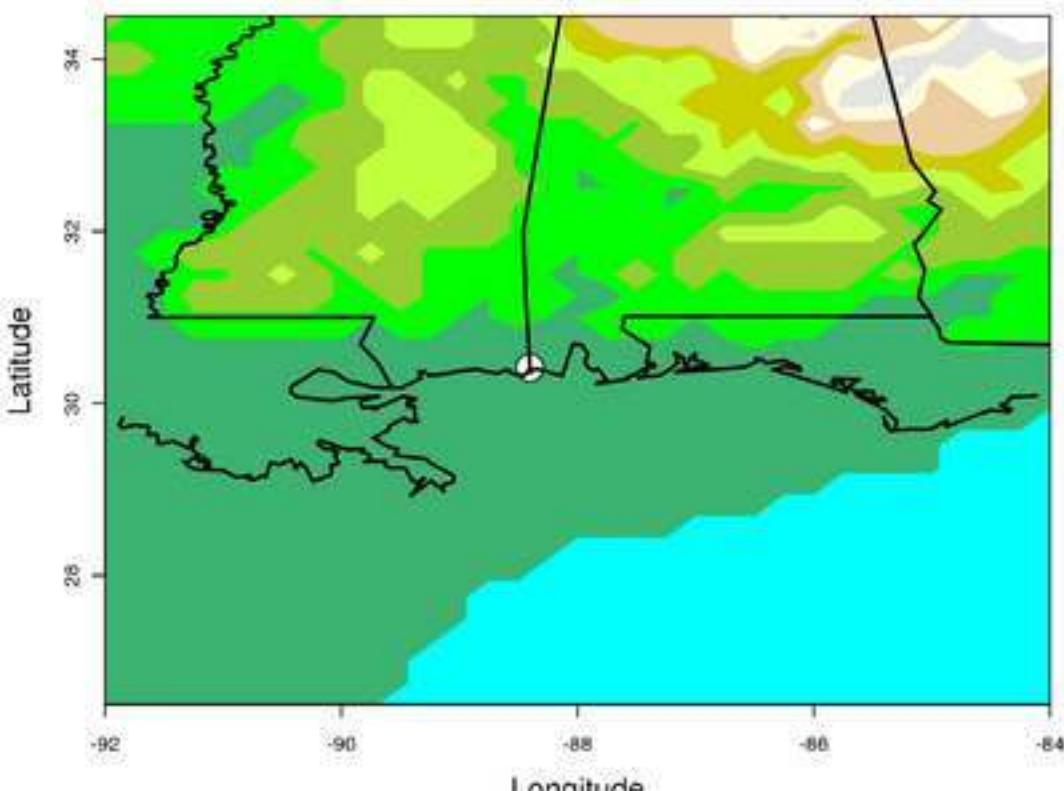
PBLH: Planetary Boundary Layer Height (m)



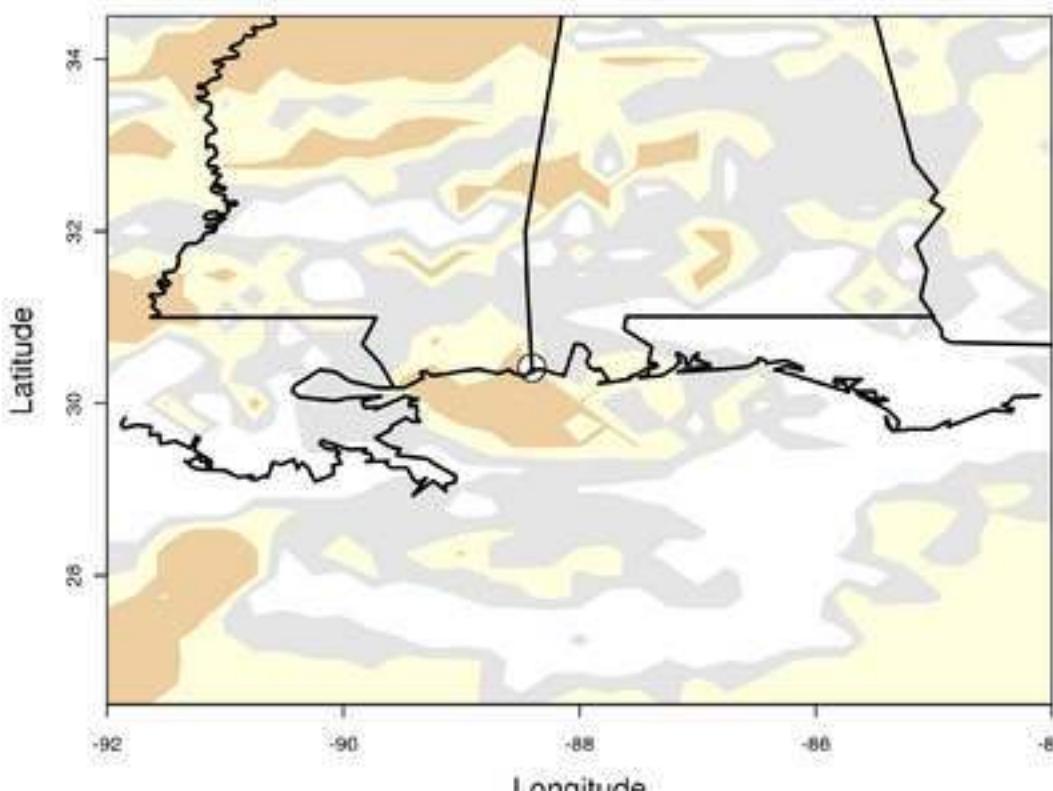
TPP3: 3-hour Accumulated Precipitation (m)



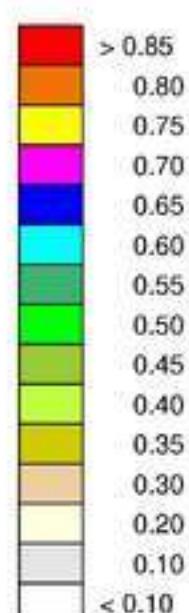
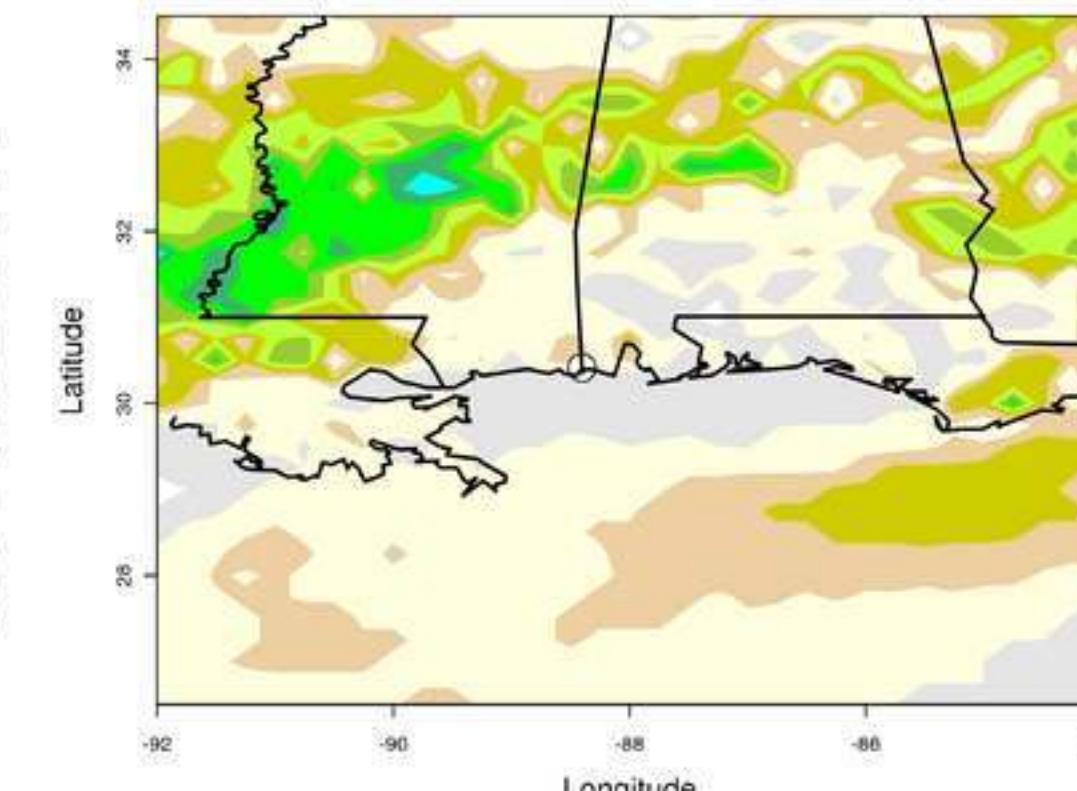
PRSS: Surface Pressure (hPa)



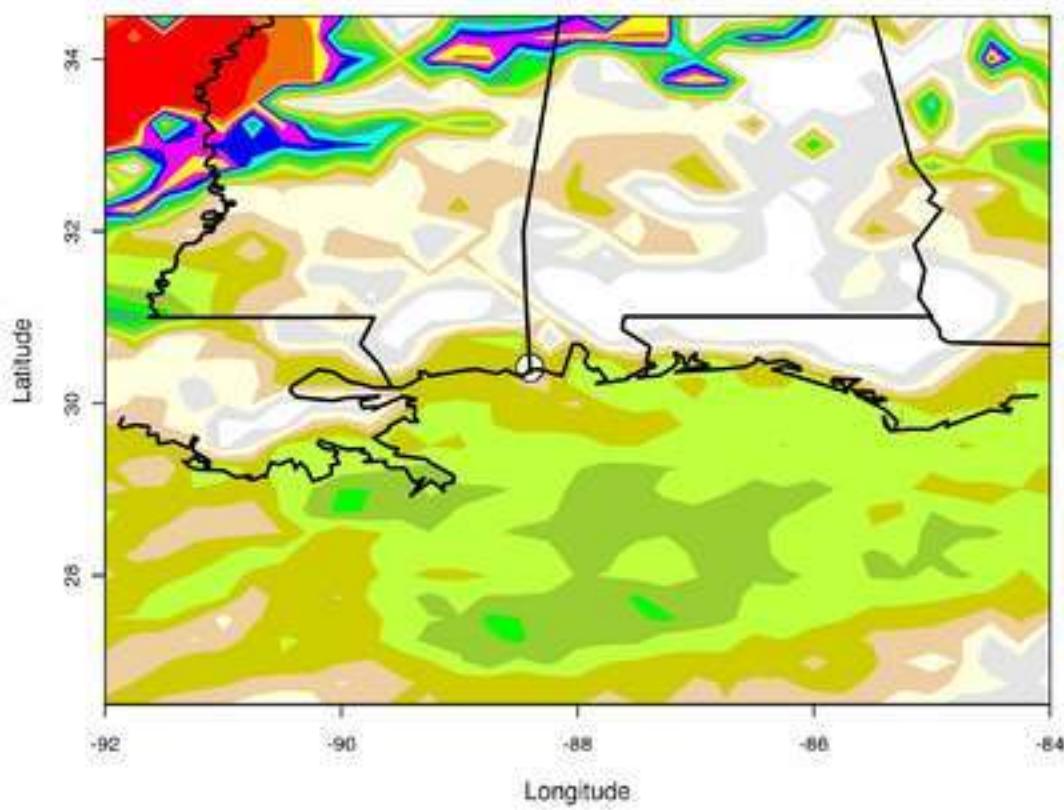
DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)



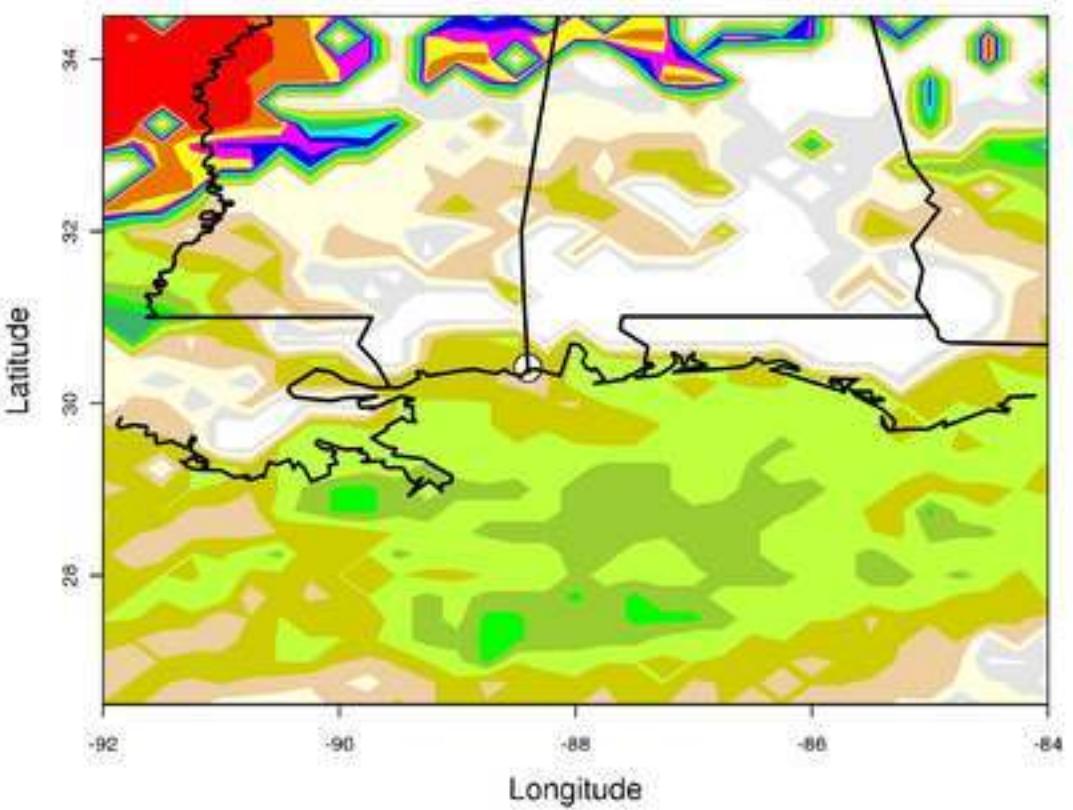
USTR: Friction Velocity (m/sec)



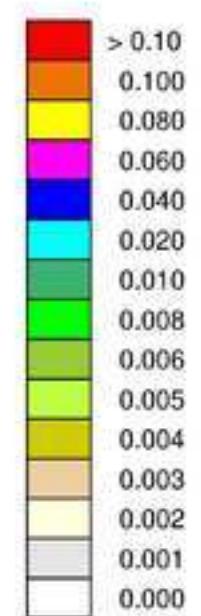
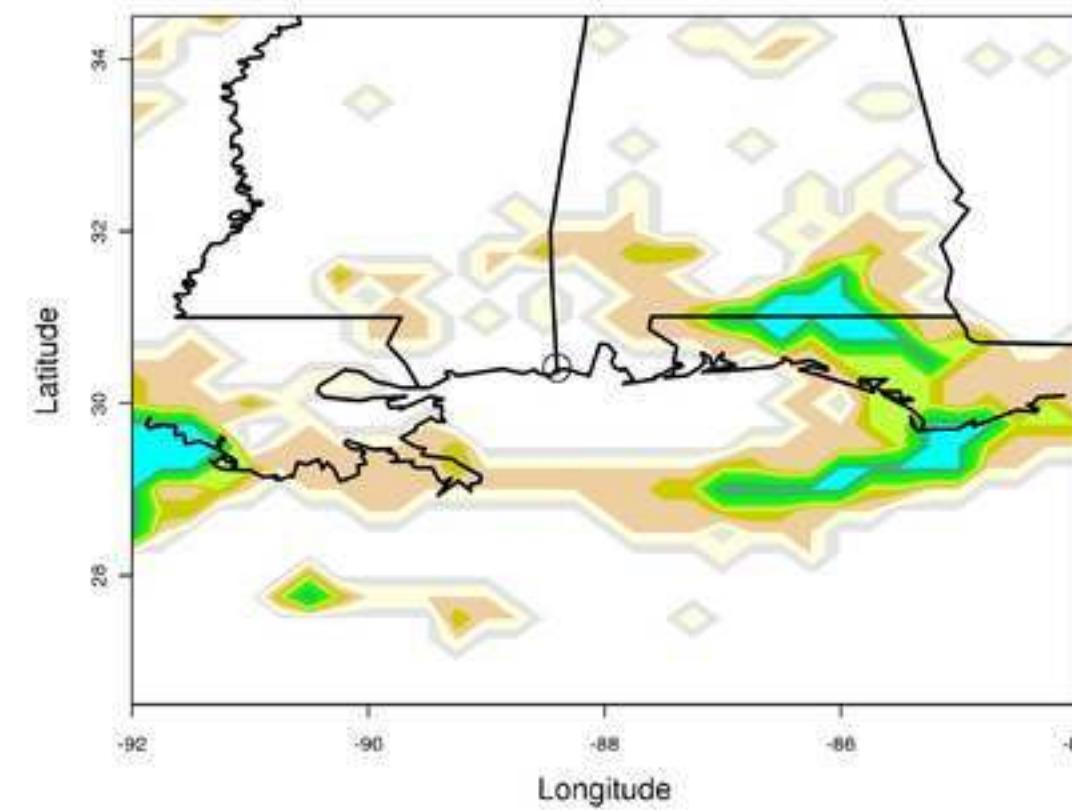
**FORECAST for 2010\_08\_12, local hour = 19**  
Mixing Heights (m) Estimated with the HYSPLIT Model



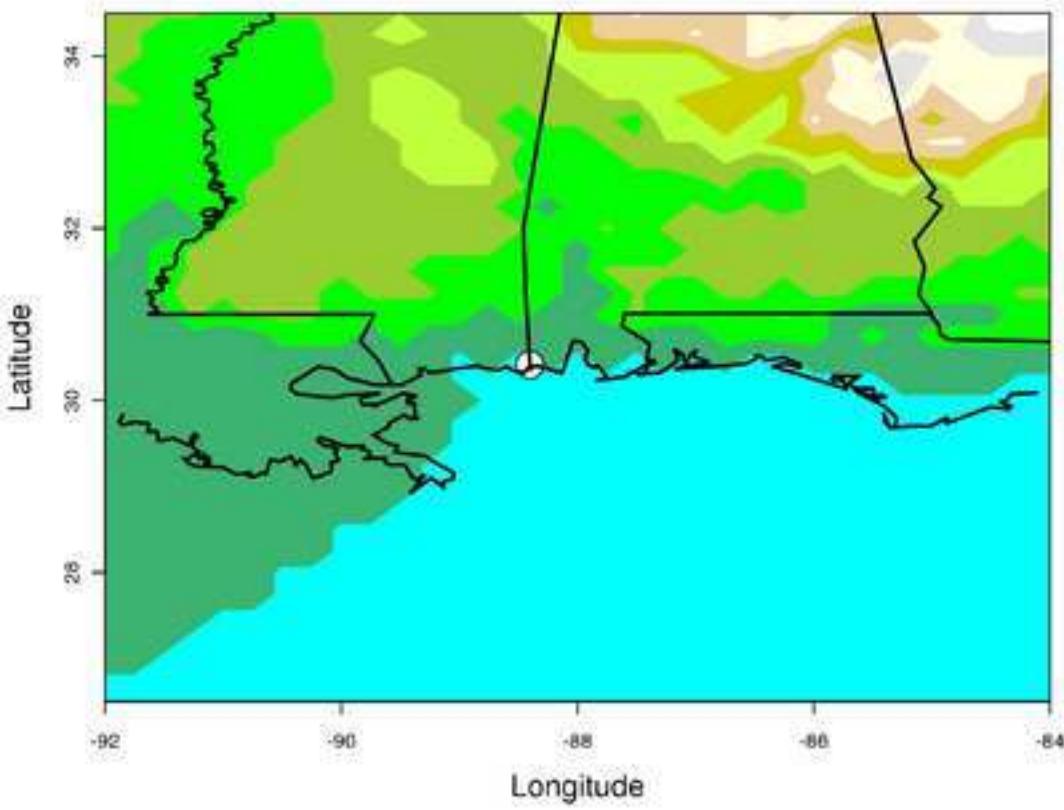
**PBLH: Planetary Boundary Layer Height (m)**



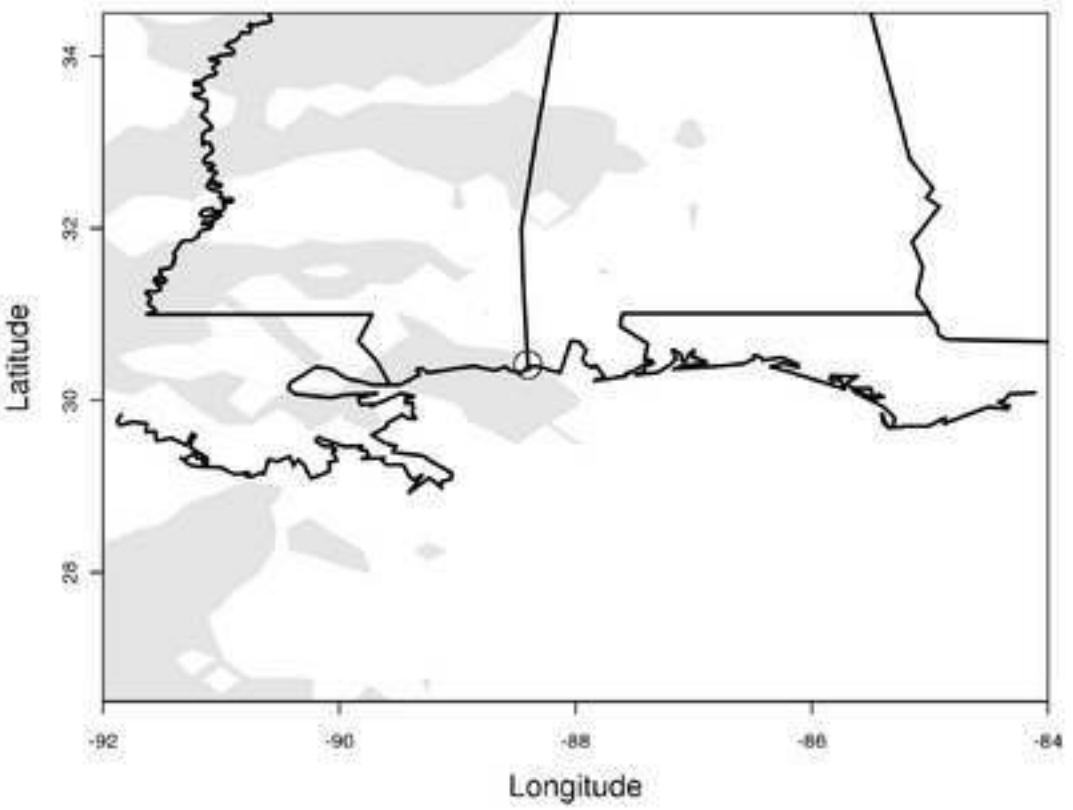
**TPP3: 3-hour Accumulated Precipitation (m)**



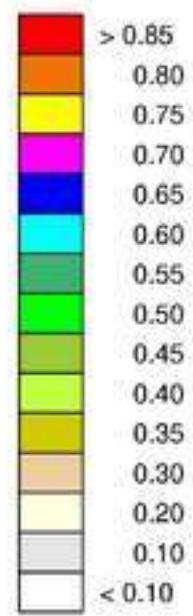
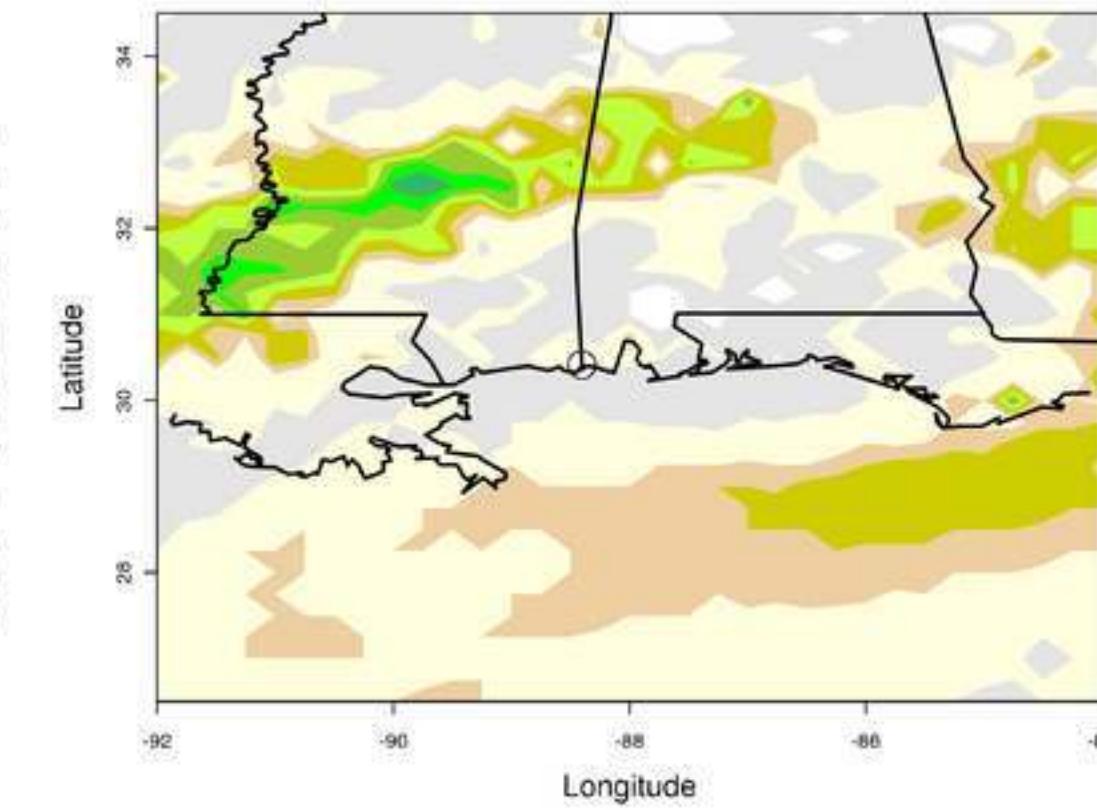
**PRSS: Surface Pressure (hPa)**



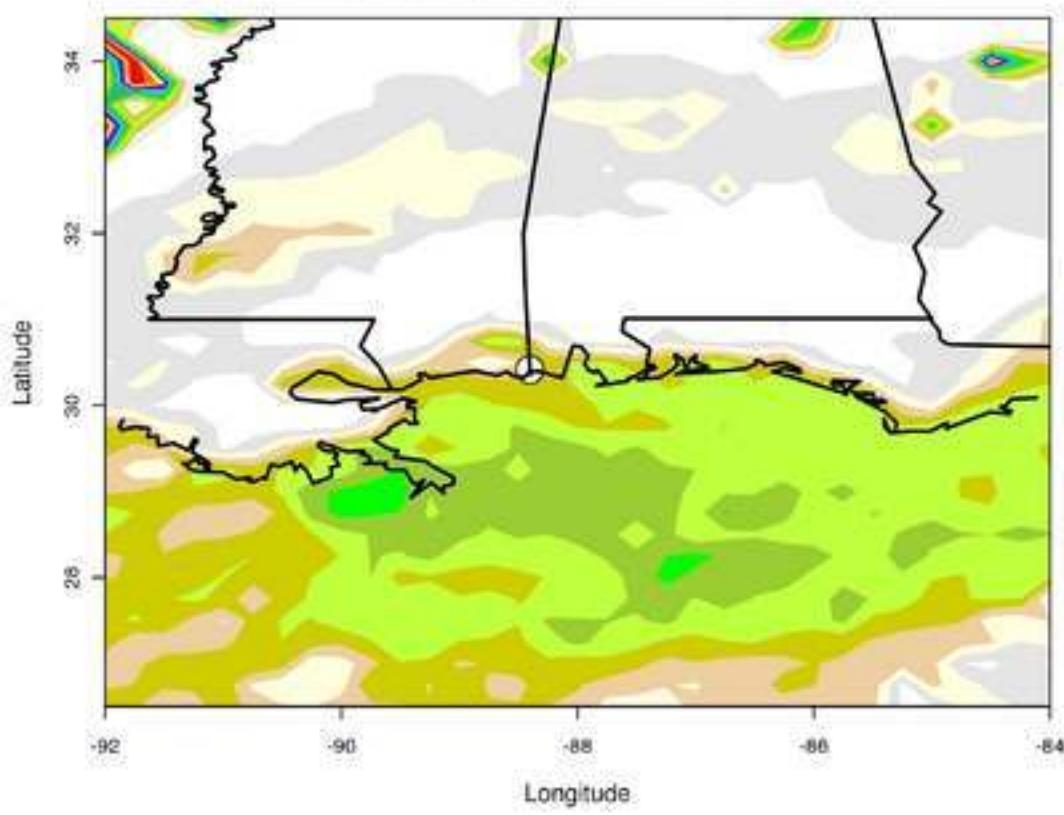
**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**



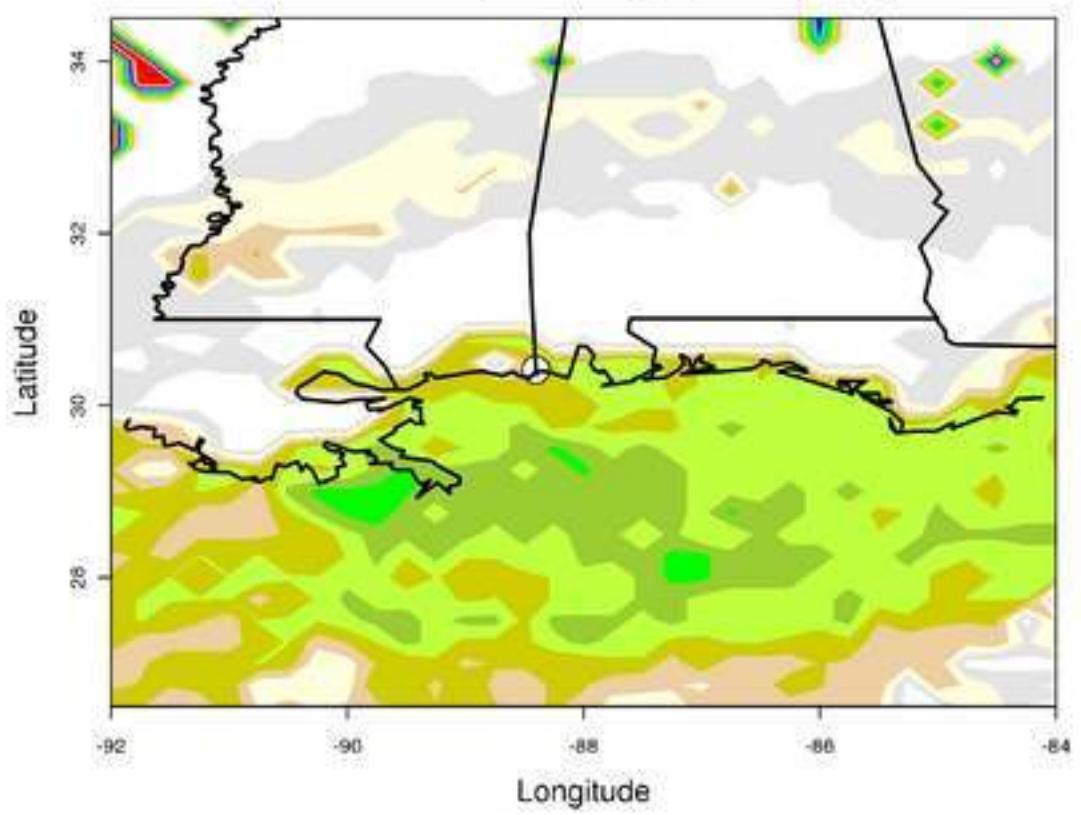
**USTR: Friction Velocity (m/sec)**



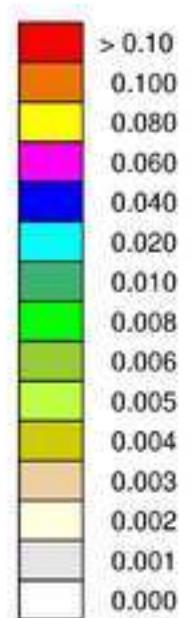
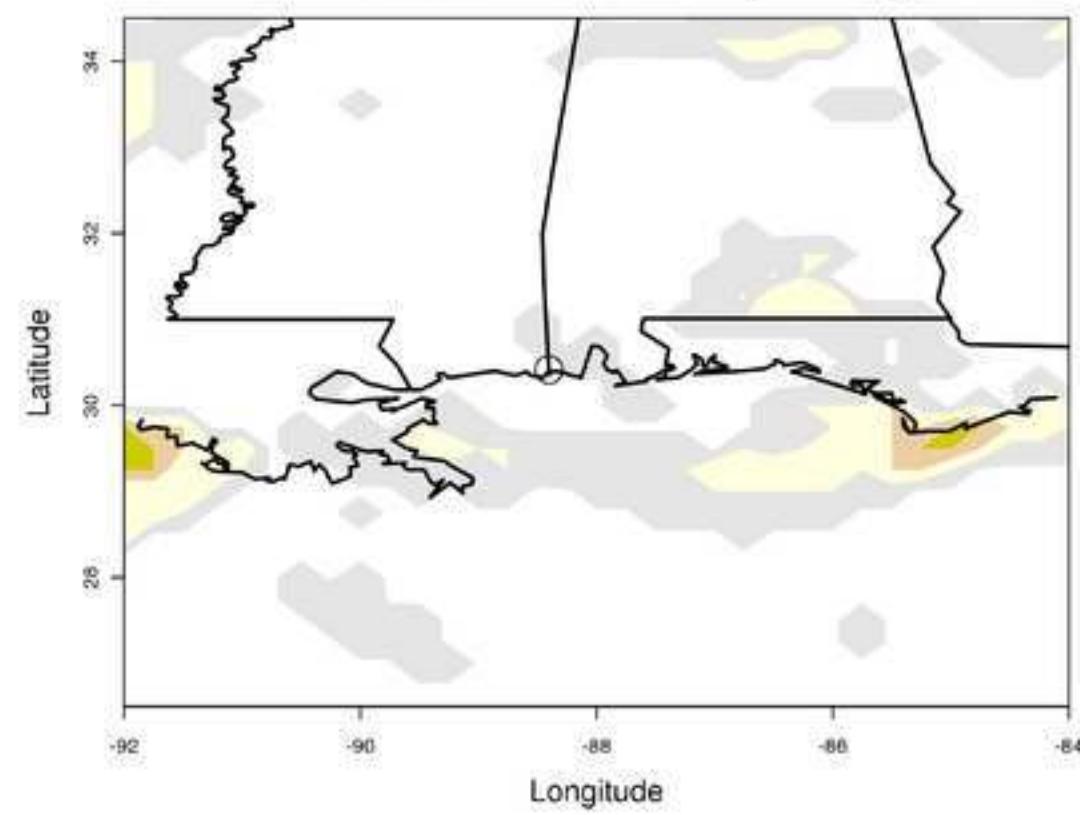
**FORECAST for 2010\_08\_12, local hour = 20**  
Mixing Heights (m) Estimated with the HYSPLIT Model



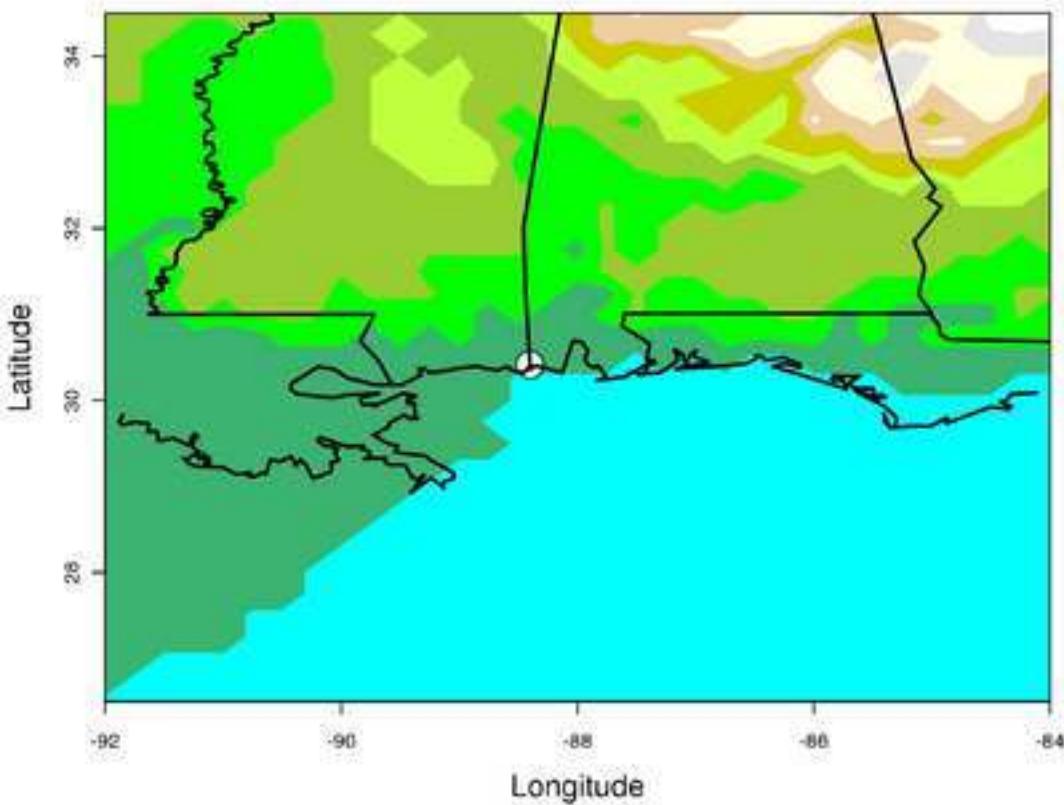
**PBLH: Planetary Boundary Layer Height (m)**



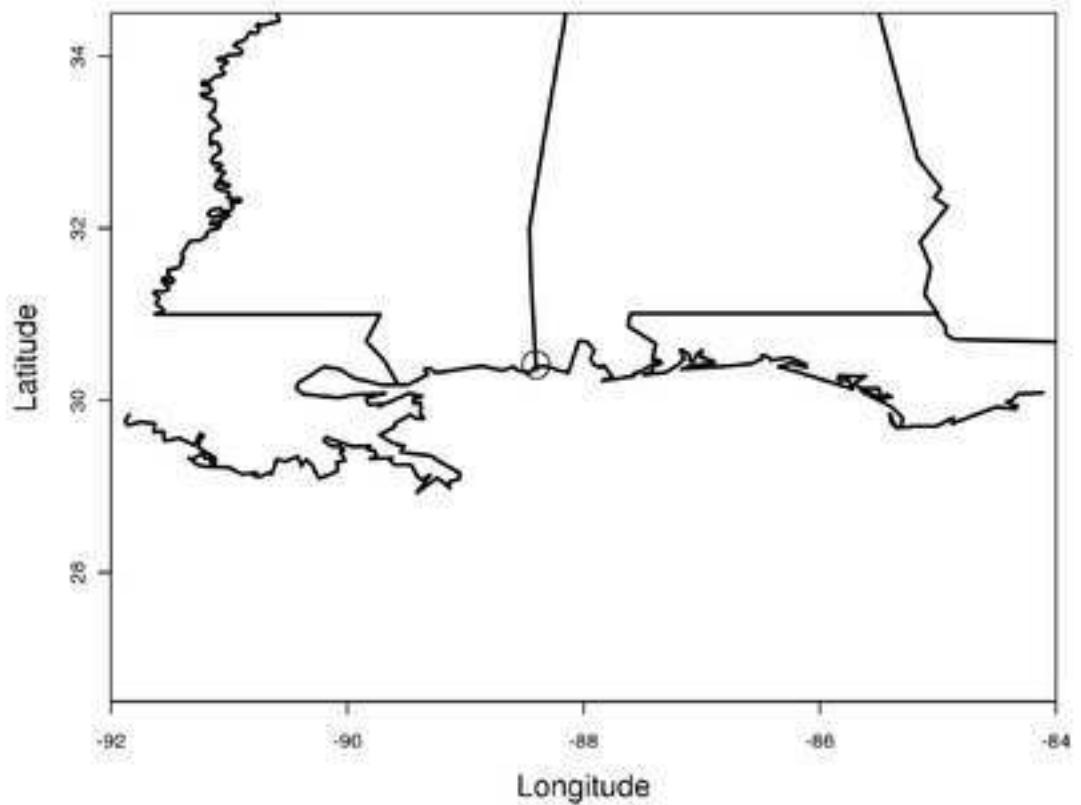
**TPP3: 3-hour Accumulated Precipitation (m)**



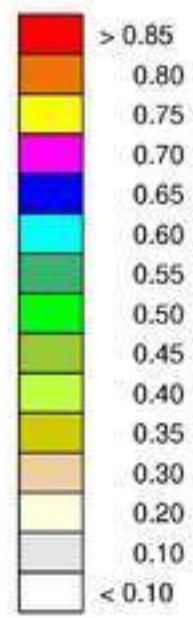
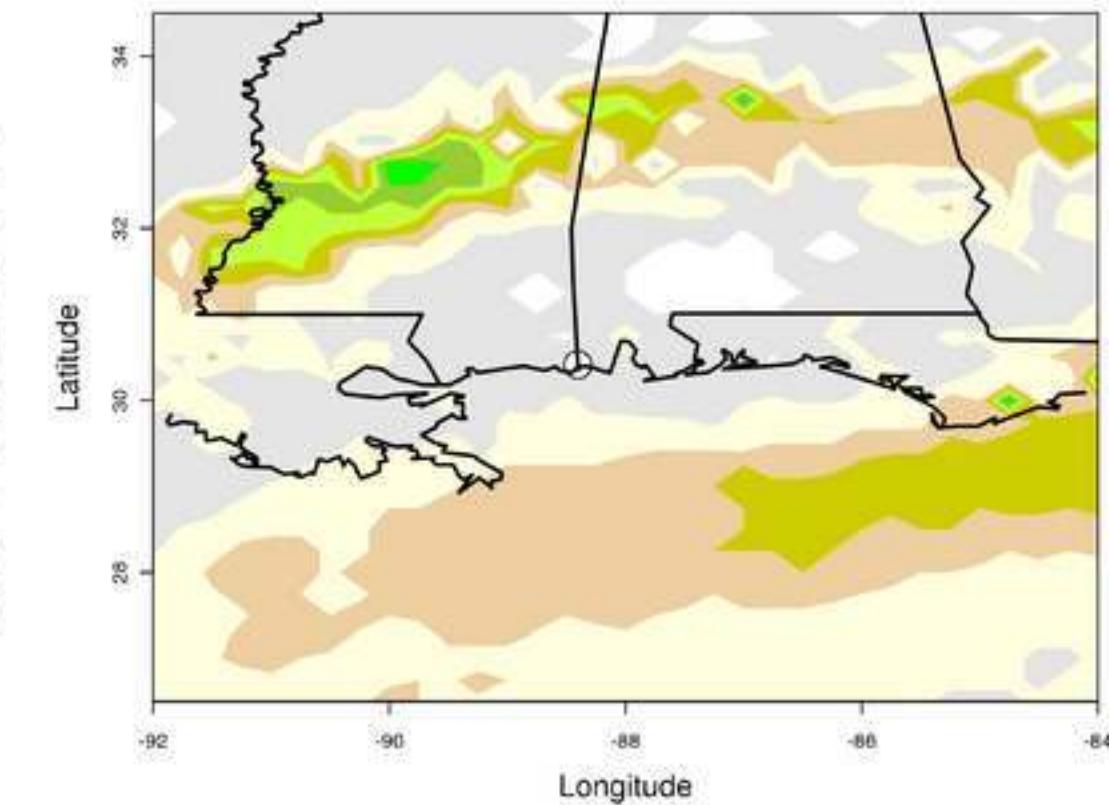
**PRSS: Surface Pressure (hPa)**



**DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)**



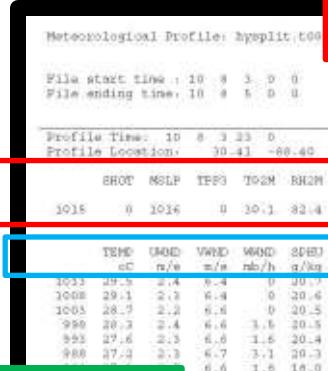
**USTR: Friction Velocity (m/sec)**



**For each hour from 9 AM to 8 PM local time, a printout of the surface and vertical met variables at the Grand Bay NERR follows... (according to the 00-Z forecast)**

### SURFACE MET PARAMETERS:

PRSS: Surface Pressure (hPa)  
 SHGT: Surface Height (m)  
 MSLP: Mean Sea Level Pressure (hPa)  
 TPP3: 3-hour Accumulated Precipitation (mm)  
 T02M: Temperature (deg C) at 2 meter height  
 RH2M: Relative Humidity (percent) at 2 meter height  
 U10M: U Wind Component (m/sec) at 10 meter height  
 V10M: V Wind Component (m/sec) at 10 meter height  
 PRSS: Surface Pressure (hPa)  
 LHTF: Latent Heat Net Flux (W/m<sup>2</sup>)  
 SHTF: Sensible Heat Net Flux (W/m<sup>2</sup>)  
 USTR: Friction Velocity (m/sec)  
 RGHS: Roughness Length (m)  
 DSWF: Downward Short Wave Radiation Flux (W/m<sup>2</sup>)  
 PBLH: Planetary Boundary Layer Height (m)



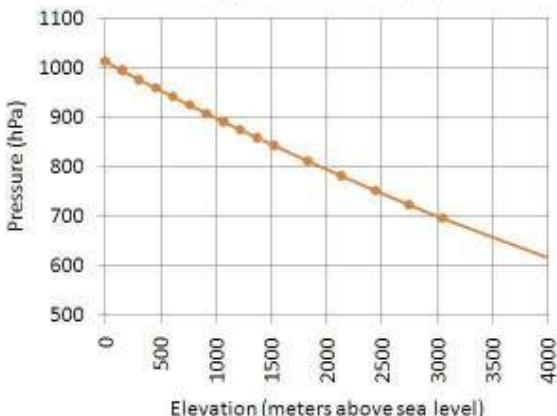
Each level defined by pressure (hPa); see graphs below for an approximate conversion between height and pressure

### MET PARAMETERS at VERTICAL LEVELS ABOVE THE SURFACE:

- TEMP: Temperature, deg C
- UWND and VWND: U and V wind components (m/sec); Note that grid is rotated so these are not E-W, N-S winds
- WWND: Vertical velocity (mb/hr) [units of millibars/hr]
- SPHU: Specific Humidity (g water/kg air)
- TKEN: Turbulent Kinetic Energy (J/kg)
- TPOT: Potential Temperature (K)
- WDIR: Wind Direction (degrees)
- WSPD: Wind Speed (m/sec)

353 -24.0 -5.7  
304 -22.1 -33.9 -2.3  
250 -40.1 -11.9 -3.4  
220 -49.3 -14.2 -6.4  
181 -60.5 -12.1 -5.0

atmospheric pressure (hPa) as a function of height above sea level (m)



atmospheric pressure (hPa) as a function of height above sea level (m)



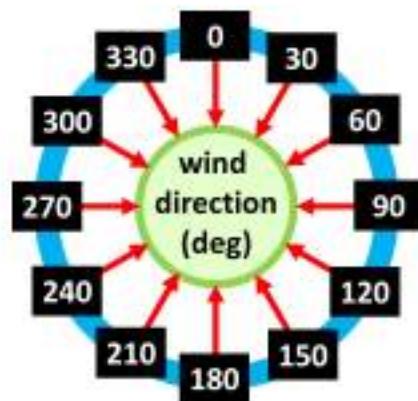
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 14 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1012	0	1010	2E-3	29.7	75.0	-1.1	1.6	1012	122	12.9	1E-1	0	184	929

	TEMP	UWND	VWND	WWND	SPHU	TKEN		TPOT	WDIR	WSPD				
	oC	m/s	m/s	mb/h	g/kg			oK	deg	m/s				
1010	28.8	-0.85	2.5	0	18.3	0.36		301.1	175.3	2.7				
1005	28.3	-0.68	2.6	-3.5	18.2	0.38		301.0	179.3	2.7				
1000	27.9	-0.71	2.7	-3.5	18.2	0.46		301.1	178.9	2.7				
995	27.5	-0.68	2.7	-3.5	18.2	0.47		301.0	179.5	2.7				
990	27.1	-0.97	2.7	-2.4	18.2	0.49		301.1	174.3	2.9				
985	26.7	-0.95	2.8	-4.0	18.1	0.49		301.2	175.0	2.9				
980	26.1	-0.79	2.8	-4.6	18.1	0.48		301.0	178.0	2.9				
975	25.8	-0.75	2.8	-2.9	18.1	0.48		301.1	178.8	2.9				
969	25.2	-0.94	2.8	-4.8	18.1	0.46		301.0	175.1	2.9				
963	24.7	-1.2	3.0	-4.1	18.0	0.45		301.0	171.7	3.3				
958	24.2	-0.97	2.8	-3.6	18.0	0.44		301.1	174.7	3.0				
951	23.6	-1.1	2.9	-3.5	17.9	0.42		301.0	172.1	3.1				
945	23.0	-1.1	3.1	-3.5	17.6	0.42		301.0	174.1	3.3				
938	22.6	-1.3	3.4	-3.5	16.4	0.45		301.2	172.7	3.6				
931	22.4	-1.2	4.1	0	15.8	0.20		301.6	177.9	4.3				
924	22.0	-0.89	5.1	0	15.2	0.20		302.0	184.1	5.2				
915	21.6	-0.46	5.6	0	14.9	0.20		302.4	189.1	5.6				
894	20.4	0	6.1	-3.5	14.3	0.20		303.1	193.9	6.1				
867	18.8	0.31	5.9	0	13.4	0.20		304.2	196.8	6.0				
836	17.1	0.74	4.4	0	12.5	0.20		305.6	203.3	4.5				
802	15.3	-1.0	2.0	0	11.4	0.20		307.3	166.1	2.2				
766	13.2	-1.9	0.75	0	10.1	0.20		309.1	125.6	2.0				
727	11.6	-3.6	0.77	0	8.8	0.20		311.9	115.9	3.7				
686	9.1	-4.5	2.3	7.0	7.3	0.20		314.3	131.0	5.1				
642	6.0	-6.0	2.3	0	6.1	0.20		316.8	125.0	6.4				
596	2.3	-6.0	2.1	0	5.0	0.20		319.4	123.6	6.4				
548	-1.6	-5.2	1.1	0	4.3	0.20		322.5	115.9	5.3				
500	-5.7	-4.7	0.37	7.0	4.7	0.20		326.1	108.4	4.7				
451	-9.9	-5.8	1.0	7.0	2.8	0.20		330.7	113.8	5.8				
401	-15.3	-5.9	0.62	0	1.5	0.20		334.8	109.9	5.9				
352	-22.0	-2.9	2.9	3.5	0.76	0.20		338.6	149.2	4.1				
303	-30.6	-4.6	3.2	0	0.35	0.20		341.1	138.6	5.5				
259	-40.0	-8.9	0	0	0.16	0.20		343.2	103.9	8.9				
220	-49.5	-6.6	0	2.4	1E-1	0.20		345.1	103.9	6.6				
182	-60.7	-7.2	2.7	4.8	3E-2	0.20		345.7	124.6	7.7				
138	-72.8	-8.1	-1.5	2.6	1E-2	0.20		353.3	93.6	8.2				
88	-67.2	-14.4	-5.5	-1.0	1E-2	0.20		413.0	82.9	15.4				
63	-59.6	-17.4	-3.0	-0.93	1E-2	0.20		471.5	94.2	17.7				
38	-47.1	-25.1	-4.7	0.18	3E-2	0.20		577.6	93.2	25.6				



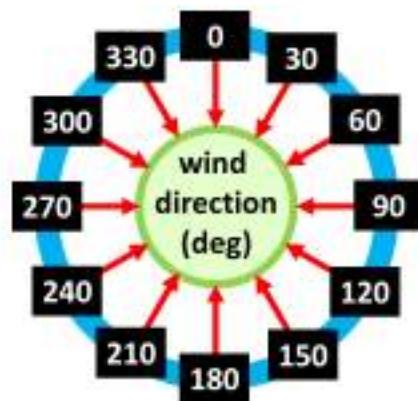
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 15 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1012	0	1010	2E-3	29.9	73.8	-0.89	2.7	1012	144	15.4	0.11	0	680	1024

	TEMP	UWND	VWND	WWND	SPHU	TKEN		TPOT	WDIR	WSPD				
	oC	m/s	m/s	mb/h	g/kg			oK	deg	m/s				
1010	29.1	-0.83	3.2	0	18.1	0.29		301.5	179.2	3.3				
1005	28.7	-0.88	3.2	-3.6	18.1	0.38		301.5	178.5	3.3				
1000	28.1	-0.94	3.3	-2.6	18.1	0.38		301.2	177.7	3.4				
995	27.6	-0.75	3.3	-3.5	18.1	0.39		301.2	181.3	3.4				
990	27.3	-0.71	3.2	-3.0	18.1	0.40		301.3	181.6	3.3				
985	26.9	-1.0	3.4	-4.4	18.1	0.41		301.3	177.2	3.5				
980	26.4	-0.55	3.3	-3.0	18.0	0.40		301.3	184.4	3.4				
974	25.9	-0.88	3.4	-4.5	17.9	0.40		301.2	179.6	3.6				
969	25.3	-0.59	3.2	-4.6	18.0	0.38		301.2	183.5	3.3				
963	24.9	-1.1	3.4	-4.9	18.0	0.38		301.2	176.6	3.6				
957	24.4	-0.93	3.3	-5.0	17.9	0.36		301.2	178.3	3.5				
951	23.7	-0.95	3.4	-3.5	17.9	0.36		301.1	178.3	3.6				
945	23.2	-0.83	3.4	-4.6	17.9	0.35		301.2	180.1	3.5				
938	22.6	-0.73	3.5	-6.8	17.4	0.33		301.2	182.0	3.6				
931	22.4	-1.2	4.5	-3.8	16.3	0.26		301.7	179.4	4.6				
923	22.1	-0.59	5.6	-3.6	15.5	0.20		302.0	187.8	5.7				
915	21.5	0	5.9	0	15.2	0.20		302.3	193.9	5.9				
893	20.3	-0.37	6.2	0	14.5	0.20		303.1	190.5	6.3				
867	18.9	0	6.0	0	13.6	0.20		304.3	193.9	6.0				
836	17.1	0.60	4.2	7.0	12.5	0.20		305.6	202.0	4.3				
802	15.2	-1.4	2.3	14.1	11.2	0.20		307.1	162.2	2.6				
766	12.9	-2.7	0.99	4.4	9.7	0.20		308.8	124.3	2.8				
727	11.8	-4.5	1.1	0	8.2	0.20		312.1	117.5	4.6				
686	9.3	-5.0	2.4	0	6.8	0.20		314.6	129.3	5.6				
642	6.0	-5.2	3.1	0	5.7	0.20		316.9	135.1	6.0				
596	2.3	-5.8	1.9	0	4.7	0.20		319.4	122.4	6.1				
548	-1.4	-5.0	0.39	0	4.3	0.20		322.7	108.2	5.0				
500	-5.6	-6.0	0	0	4.3	0.20		326.3	103.9	6.0				
451	-9.9	-5.8	1.2	-7.0	2.8	0.20		330.6	115.7	5.9				
401	-15.5	-5.8	0.38	-7.0	1.6	0.20		334.5	107.6	5.8				
352	-22.0	-3.3	2.4	3.5	0.76	0.20		338.6	139.5	4.1				
303	-30.8	-5.8	3.3	0	0.36	0.20		340.9	133.8	6.7				
259	-40.2	-7.8	2.9	2.4	0.17	0.20		343.0	123.9	8.3				
220	-49.3	-5.4	2.6	4.1	1E-1	0.20		345.3	129.6	6.0				
182	-60.1	-7.2	1.7	5.1	3E-2	0.20		346.6	117.4	7.4				
138	-71.8	-6.3	-1.7	2.4	1E-2	0.20		355.2	88.8	6.6				
88	-67.7	-13.3	-6.1	-1.2	1E-2	0.20		412.0	79.1	14.6				
63	-59.7	-19.3	-0.22	0.25	1E-2	0.20		471.2	103.2	19.3				
38	-47.0	-25.1	-4.9	0.21	2E-2	0.20		577.7	92.9	25.6				



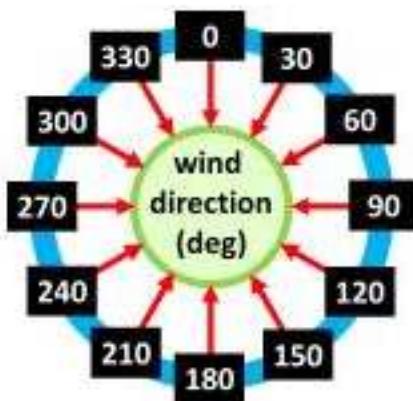
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 16 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RHHS	DSWF	PBLH
								hPa						
1009	0	1011	0	29.9	72.9	-0.33	2.7	1009	144	9.9	0.11	0	495	1152

	TEMP	UWND	VWND	WWND	SPHU	TKEN		TPOT	WDIR	WSPD				
	oC	m/s	m/s	mb/h	g/kg			oK	deg	m/s				
1007	29.1	-0.22	3.2	0	18.1	0.35		301.7	190.0	3.2				
1002	28.9	-0.32	3.2	-1.9	18.1	0.43		301.9	188.1	3.2				
997	28.3	-0.40	3.0	-2.2	18.0	0.47		301.7	186.3	3.1				
992	27.9	0	3.2	-3.3	18.0	0.49		301.7	193.9	3.2				
987	27.5	-0.35	3.3	-2.7	18.0	0.49		301.8	187.8	3.3				
982	27.0	-0.52	3.2	-1.4	17.9	0.49		301.8	184.5	3.2				
977	26.5	0	3.2	-1.5	17.8	0.50		301.6	193.9	3.2				
972	26.1	-0.51	3.3	0	17.9	0.49		301.7	185.2	3.4				
966	25.6	-0.41	3.4	-2.0	17.9	0.53		301.7	186.9	3.4				
961	25.0	0	3.2	-2.0	17.7	0.53		301.6	193.9	3.2				
955	24.5	-0.26	3.1	-1.5	17.8	0.49		301.6	189.2	3.1				
949	23.9	-0.41	3.4	-3.1	17.7	0.45		301.6	186.9	3.4				
942	23.3	0	3.4	-2.9	17.7	0.45		301.5	193.9	3.4				
935	22.8	0	3.4	0	17.4	0.45		301.6	193.9	3.4				
928	22.3	0	3.9	0	16.2	0.45		301.9	193.9	3.9				
921	22.1	0.34	5.3	0	15.2	0.45		302.3	197.5	5.3				
912	21.6	0.28	5.6	0	14.8	0.20		302.6	196.8	5.6				
891	20.4	0	5.9	0	14.2	0.20		303.4	193.9	5.9				
864	19.0	0.29	5.2	0	13.2	0.20		304.6	197.1	5.2				
833	17.4	0.97	3.3	3.6	12.2	0.20		306.1	210.2	3.5				
800	15.5	-1.9	1.4	5.1	10.8	0.20		307.8	140.7	2.3				
763	13.3	-3.7	0.66	0	9.5	0.20		309.4	113.8	3.8				
725	11.6	-4.6	1.5	0	8.5	0.20		312.2	121.9	4.8				
684	9.0	-4.4	2.4	0	7.1	0.20		314.6	132.9	5.0				
640	6.0	-4.2	2.9	2.3	5.9	0.20		317.1	138.4	5.1				
594	2.5	-5.3	1.7	0	4.8	0.20		319.9	121.2	5.6				
547	-1.2	-5.1	0	2.8	3.8	0.20		323.2	103.9	5.1				
498	-5.5	-7.0	0	2.9	4.3	0.20		326.6	103.9	7.0				
450	-10.1	-6.2	1.3	-3.2	2.8	0.20		330.7	115.3	6.3				
400	-15.6	-6.3	1.1	-7.0	1.7	0.20		334.7	113.8	6.4				
351	-22.1	-4.5	2.3	-4.3	0.79	0.20		338.8	131.1	5.1				
302	-31.0	-6.8	3.9	-6.5	0.36	0.20		340.9	133.6	7.8				
258	-40.4	-7.1	4.8	-5.0	0.15	0.20		343.0	138.0	8.6				
219	-49.4	-4.3	3.9	-3.2	1E-1	0.20		345.5	146.2	5.8				
182	-60.4	-7.0	2.8	-2.3	3E-2	0.20		346.5	126.0	7.5				
137	-71.9	-6.2	-1.4	-1.8	1E-2	0.20		355.2	91.5	6.4				
88	-67.7	-12.7	-6.1	1.7	1E-2	0.20		412.3	78.3	14.1				
63	-58.9	-17.8	2.0	0.18	1E-2	0.20		473.3	110.1	17.9				
38	-46.8	-25.5	-5.4	0.17	2E-2	0.20		578.8	91.9	26.1				



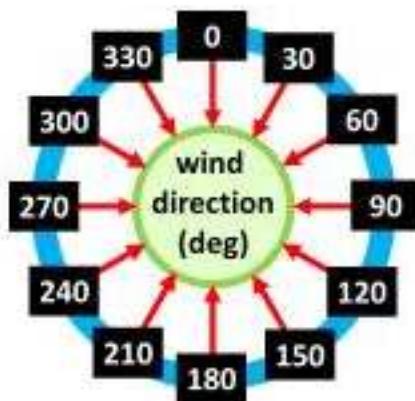
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 17 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RHHS	DSWF	PBLH
								hPa						
1010	0	1010	0	30.0	72.6	-0.44	3.1	1010	152	11.1	0.12	0	777	1009

	TEMP	UWND	VWND	WWND	SPHU	TKEN		TPOT	WDIR	WSPD				
	oC	m/s	m/s	mb/h	g/kg			oK	deg	m/s				
1007	29.2	-0.60	3.1	-1.8	18.1	0.32		301.7	183.1	3.2				
1003	28.8	-0.38	3.2	0	18.0	0.34		301.7	187.0	3.2				
998	28.3	-0.47	3.3	-1.8	18.0	0.36		301.7	185.7	3.3				
993	28.0	-0.51	3.3	-2.4	17.9	0.42		301.8	185.0	3.3				
988	27.4	-0.43	3.3	-0.99	17.8	0.42		301.6	186.4	3.3				
983	27.1	-0.41	3.2	-1.8	17.9	0.42		301.7	186.4	3.2				
978	26.6	-0.38	3.3	0	17.8	0.42		301.7	187.3	3.3				
972	26.1	-0.42	3.4	-1.2	17.8	0.43		301.7	186.8	3.4				
967	25.6	-0.43	3.3	0	17.8	0.45		301.7	186.5	3.3				
961	25.1	-0.44	3.3	0	17.8	0.32		301.7	186.4	3.4				
955	24.6	-0.45	3.2	0	17.7	0.32		301.7	186.1	3.3				
949	24.0	-0.57	3.4	-0.93	17.7	0.32		301.6	184.4	3.4				
943	23.4	-0.72	3.4	0	17.6	0.32		301.6	181.8	3.4				
936	22.9	-0.61	3.4	0	17.3	0.32		301.7	183.8	3.5				
929	22.6	-0.34	4.0	0	15.7	0.32		302.1	189.0	4.0				
921	22.2	0	5.4	0	15.1	0.20		302.4	193.9	5.4				
913	21.8	0	5.6	0	14.8	0.20		302.7	193.9	5.6				
891	20.5	0	5.9	0	14.0	0.20		303.5	193.9	5.9				
865	19.0	0.42	4.8	0	13.2	0.20		304.6	198.8	4.9				
834	17.2	0	2.8	4.7	12.1	0.20		305.9	193.9	2.8				
800	15.3	-2.4	1.3	6.5	10.9	0.20		307.5	132.8	2.8				
764	12.8	-4.5	1.1	2.7	9.5	0.20		308.9	116.9	4.7				
725	11.4	-4.5	2.0	2.7	8.5	0.20		312.0	128.1	5.0				
684	8.9	-4.0	2.5	1.9	7.2	0.20		314.3	136.2	4.8				
641	5.8	-3.8	2.3	0	6.0	0.20		316.8	135.4	4.5				
595	2.3	-4.5	1.9	0	4.9	0.20		319.6	126.9	4.9				
547	-1.3	-4.2	0.92	0	3.8	0.20		323.1	116.2	4.3				
499	-5.5	-6.7	0.43	3.0	4.3	0.20		326.6	107.5	6.8				
450	-10.0	-5.8	1.3	0	3.0	0.20		330.7	116.1	5.9				
400	-15.6	-6.2	1.2	0	1.8	0.20		334.6	115.2	6.3				
351	-22.2	-4.4	2.2	3.5	0.84	0.20		338.6	130.5	5.0				
303	-31.1	-6.0	5.2	3.5	0.40	0.20		340.7	144.6	8.0				
258	-40.3	-6.1	5.8	2.7	0.20	0.20		343.0	147.7	8.4				
219	-49.5	-3.5	5.6	0	1E-1	0.20		345.2	161.9	6.6				
182	-60.6	-6.3	4.2	0	3E-2	0.20		346.1	137.4	7.6				
137	-72.2	-6.6	-0.53	-1.3	1E-2	0.20		354.6	99.2	6.6				
88	-66.1	-12.2	-6.3	0.13	1E-2	0.20		415.4	76.7	13.8				
63	-57.9	-15.8	0.68	-0.40	1E-2	0.20		475.5	106.3	15.8				
38	-47.1	-26.7	-3.9	0.31	2E-2	0.20		577.9	95.6	27.0				



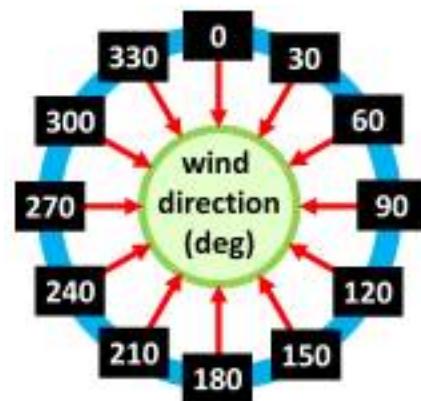
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 18 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1009	0	1010	0	30.1	71.7	-0.45	2.7	1009	144	11.8	0.12	0	680	1138

	TEMP	UWND	VWND	WWND	SPHU	TKEN	TPOT	WDIR	WSPD
	°C	m/s	m/s	mb/h	g/kg		°K	deg	m/s
1007	29.3	0	2.7	0	18.0	0.33	301.9	193.9	2.7
1002	28.8	-0.34	2.8	0	18.0	0.43	301.8	187.0	2.8
997	28.5	0	2.8	0	17.9	0.43	301.9	193.9	2.8
992	28.0	0	2.7	1.1	17.8	0.50	301.8	193.9	2.7
987	27.7	-0.52	2.8	1.5	17.9	0.51	301.9	183.3	2.9
982	27.0	-0.56	2.7	1.8	17.8	0.51	301.7	182.2	2.8
977	26.6	-0.55	2.7	1.8	17.7	0.51	301.8	182.1	2.7
972	26.2	0	2.7	1.9	17.8	0.63	301.8	193.9	2.7
966	25.6	-0.43	2.8	1.8	17.7	0.63	301.7	185.1	2.8
961	25.1	0	2.7	3.4	17.6	0.57	301.7	193.9	2.7
955	24.6	-0.32	2.7	2.8	17.7	0.57	301.7	187.0	2.7
949	24.0	-0.31	2.7	3.9	17.6	0.57	301.7	187.3	2.7
942	23.4	0	2.9	4.3	17.6	0.57	301.7	193.9	2.9
936	22.7	0	2.8	3.7	17.4	0.57	301.6	193.9	2.8
929	22.6	0	3.5	5.7	15.4	0.45	302.1	193.9	3.5
921	22.1	0.46	4.9	5.1	14.8	0.20	302.3	199.3	4.9
912	21.6	0.43	5.1	0	14.5	0.20	302.6	198.6	5.1
891	20.5	0	5.4	2.1	13.8	0.20	303.5	193.9	5.4
864	19.1	0.44	4.5	3.5	12.9	0.20	304.7	199.3	4.6
833	17.5	-0.27	2.2	3.5	11.9	0.20	306.2	186.9	2.2
800	15.5	-2.8	1.5	0	10.8	0.20	307.7	132.2	3.2
764	13.2	-4.8	1.2	0	9.6	0.20	309.4	117.9	4.9
725	11.4	-4.3	2.0	-3.5	8.5	0.20	312.0	128.6	4.7
684	8.8	-3.9	2.2	0	7.2	0.20	314.3	133.5	4.5
640	5.8	-3.6	1.9	-1.9	6.0	0.20	316.9	131.8	4.1
594	2.4	-3.9	2.4	0	4.8	0.20	319.8	136.1	4.6
547	-1.1	-4.1	0.89	0	3.9	0.20	323.3	116.1	4.2
498	-5.1	-7.2	0.89	2.7	4.0	0.20	327.1	110.9	7.3
450	-9.9	-6.0	1.4	3.0	3.1	0.20	330.9	116.9	6.2
400	-15.4	-5.9	1.6	5.6	1.8	0.20	335.0	118.7	6.1
351	-22.0	-5.1	2.1	8.8	0.87	0.20	338.9	126.3	5.5
303	-31.0	-5.2	5.4	2.5	0.46	0.20	340.9	150.1	7.5
258	-40.2	-5.8	5.8	0	0.24	0.20	343.2	148.9	8.1
219	-49.7	-3.2	5.9	0	1E-1	0.20	345.1	165.8	6.7
182	-60.6	-7.0	4.4	-1.6	3E-2	0.20	346.1	135.6	8.3
137	-72.5	-7.0	0.78	-0.69	1E-2	0.20	354.1	110.2	7.1
88	-66.6	-12.6	-5.5	-0.14	1E-2	0.20	414.5	80.1	13.7
63	-58.0	-15.5	1.1	0.22	1E-2	0.20	475.3	108.0	15.5
38	-46.8	-26.9	-3.2	0.21	2E-2	0.20	578.9	97.1	27.1



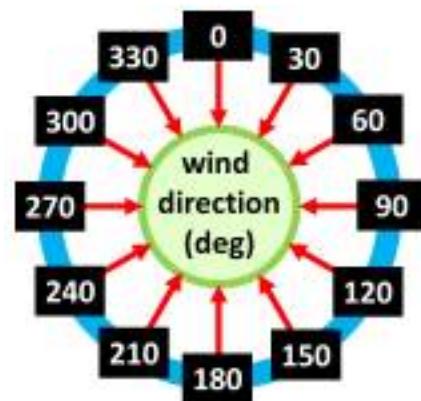
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 19 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1010	0	1010	0	30.1	71.5	-0.41	2.5	1010	144	11.7	0.12	0	777	1045

	TEMP	UWND	VWND	WWND	SPHU	TKEN	TPOT	WDIR	WSPD
	oC	m/s	m/s	mb/h	g/kg		oK	deg	m/s
1008	29.3	-0.67	2.4	0	17.8	0.33	301.8	178.3	2.5
1003	28.9	-0.31	2.5	0	17.8	0.32	301.8	186.7	2.5
998	28.5	-0.65	2.5	1.8	17.7	0.39	301.9	179.5	2.6
993	27.9	-0.59	2.6	0	17.7	0.39	301.7	181.2	2.7
988	27.6	-0.59	2.5	1.8	17.6	0.39	301.8	180.6	2.6
983	27.1	-0.65	2.4	2.8	17.7	0.38	301.7	178.9	2.5
978	26.6	-0.28	2.4	2.6	17.7	0.38	301.7	187.4	2.5
972	26.2	-0.41	2.5	4.4	17.5	0.38	301.8	184.6	2.5
967	25.7	-0.62	2.6	3.5	17.5	0.45	301.8	180.7	2.7
961	25.2	-0.67	2.4	5.7	17.5	0.45	301.7	178.5	2.5
955	24.6	0	2.6	5.2	17.5	0.45	301.7	193.9	2.6
949	24.0	0	2.6	4.9	17.6	0.45	301.6	193.9	2.6
943	23.5	-0.43	2.5	6.0	17.5	0.45	301.7	184.2	2.6
936	22.9	-0.38	2.7	6.4	17.4	0.45	301.7	185.8	2.7
929	22.8	0.36	3.5	5.8	15.5	0.32	302.3	199.8	3.5
921	22.4	1.2	4.5	5.8	14.6	0.20	302.6	208.5	4.7
913	21.9	1.1	5.0	6.3	14.3	0.20	302.9	206.1	5.2
892	20.7	0.95	5.5	3.0	13.6	0.20	303.7	203.7	5.6
865	19.3	1.1	4.4	2.3	12.6	0.20	304.9	208.7	4.5
834	17.5	0	2.4	0	11.8	0.20	306.1	193.9	2.4
800	15.5	-2.8	2.1	-2.0	10.8	0.20	307.6	140.6	3.5
764	13.3	-4.8	1.9	0	9.7	0.20	309.4	125.1	5.2
725	11.4	-4.3	2.1	0	8.5	0.20	312.0	129.5	4.8
684	8.8	-3.3	2.2	0	7.3	0.20	314.3	137.5	4.0
641	5.8	-2.9	1.9	0	6.0	0.20	316.8	136.7	3.5
595	2.4	-3.6	2.9	0	4.8	0.20	319.8	142.1	4.6
547	-1.2	-4.5	1.8	0	3.9	0.20	323.2	125.4	4.8
499	-4.9	-6.7	1.6	0	3.9	0.20	327.3	117.5	6.9
450	-9.8	-5.8	2.3	2.7	3.2	0.20	330.9	125.2	6.2
400	-15.1	-5.5	1.9	2.1	1.8	0.20	335.3	123.1	5.8
351	-21.8	-4.8	1.9	4.5	0.87	0.20	339.0	125.9	5.1
303	-30.9	-4.9	5.3	3.5	0.49	0.20	341.0	151.5	7.2
258	-40.1	-4.8	4.7	3.6	0.25	0.20	343.3	148.6	6.7
219	-49.6	-3.0	5.0	3.7	1E-1	0.20	345.1	163.3	5.8
182	-60.4	-7.5	4.1	2.4	3E-2	0.20	346.3	132.5	8.5
137	-72.3	-6.8	1.4	0.63	1E-2	0.20	354.4	115.2	7.0
88	-66.7	-12.1	-4.6	0.53	1E-2	0.20	414.1	83.1	13.0
63	-58.2	-13.9	0.54	-0.62	1E-2	0.20	474.9	106.1	13.9
38	-46.4	-26.9	-2.3	0.19	2E-2	0.20	579.6	99.0	27.0



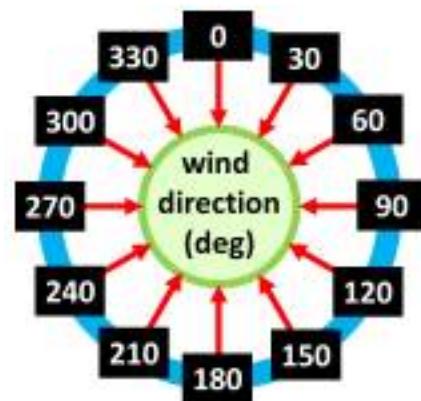
## Meteorological Profile: hysplit.t00z.nam6f

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 20 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1010	0	1009	0	30.1	71.1	-0.30	2.5	1010	136	11.7	0.12	0	865	946

	TEMP	UWND	VWND	WWND	SPHU	TKEN	TPOT	WDIR	WSPD
	oC	m/s	m/s	mb/h	g/kg		oK	deg	m/s
1007	29.3	-0.57	2.5	0	18.0	0.33	301.8	180.9	2.5
1002	28.8	-0.59	2.5	1.8	17.8	0.32	301.8	180.7	2.6
998	28.5	-0.53	2.3	1.8	17.8	0.39	301.8	181.0	2.4
993	27.9	-0.51	2.4	3.4	17.7	0.39	301.7	182.0	2.5
988	27.6	-0.49	2.3	1.4	17.7	0.45	301.9	181.9	2.4
983	27.1	-0.56	2.3	4.0	17.7	0.36	301.8	180.3	2.4
977	26.6	0	2.4	3.5	17.7	0.45	301.7	193.9	2.4
972	26.1	-0.34	2.3	4.4	17.6	0.45	301.7	185.6	2.3
967	25.7	0	2.4	3.0	17.6	0.45	301.7	193.9	2.4
961	25.2	-0.29	2.6	4.5	17.6	0.45	301.8	187.4	2.6
955	24.7	-0.26	2.4	2.8	17.6	0.32	301.8	187.7	2.4
949	24.1	0	2.5	5.1	17.6	0.32	301.8	193.9	2.5
943	23.5	0	2.6	5.4	17.5	0.32	301.7	193.9	2.6
936	22.8	0	2.7	5.9	17.4	0.32	301.7	193.9	2.7
929	22.9	1.1	3.4	4.6	15.5	0.32	302.4	211.8	3.6
921	22.6	1.9	4.1	2.9	14.7	0.20	302.8	218.7	4.5
913	22.1	1.8	4.7	0	14.4	0.20	303.1	214.5	5.0
891	20.9	1.5	5.3	0	13.5	0.20	303.9	210.0	5.5
864	19.3	1.2	4.1	1.8	12.7	0.20	304.9	209.9	4.3
834	17.5	0	2.5	-1.9	11.7	0.20	306.1	193.9	2.5
800	15.4	-2.3	2.4	-2.9	10.9	0.20	307.6	150.5	3.3
764	13.2	-4.9	2.3	-3.5	9.7	0.20	309.3	129.0	5.4
725	11.4	-3.6	2.6	-3.5	8.5	0.20	312.0	139.9	4.5
684	8.7	-2.5	1.8	-3.5	7.2	0.20	314.2	139.6	3.1
641	5.8	-2.4	2.0	-5.2	6.0	0.20	316.9	143.7	3.1
595	2.5	-3.1	2.4	-8.3	4.8	0.20	319.8	141.7	3.9
547	-1.1	-4.5	2.0	-8.8	3.9	0.20	323.3	127.1	4.9
498	-4.8	-5.9	2.5	-8.8	4.3	0.20	327.4	126.9	6.5
450	-9.7	-5.4	2.8	-7.0	3.5	0.20	331.1	131.1	6.1
400	-14.9	-5.4	2.4	-5.7	1.9	0.20	335.5	127.4	5.9
351	-21.7	-4.7	2.2	0	0.88	0.20	339.2	129.3	5.2
303	-30.7	-4.4	5.5	0	0.47	0.20	341.3	155.0	7.1
258	-40.0	-3.8	3.2	0	0.22	0.20	343.5	143.6	5.0
219	-49.4	-2.8	3.7	0	1E-1	0.20	345.4	156.3	4.6
182	-60.2	-7.0	3.0	0	3E-2	0.20	346.8	126.8	7.6
137	-71.9	-7.0	1.3	0.44	1E-2	0.20	355.2	114.6	7.1
88	-66.6	-11.7	-3.8	0.34	1E-2	0.20	414.5	85.7	12.3
63	-58.4	-11.4	-1.2	1E-1	1E-2	0.20	474.4	98.0	11.5
38	-46.4	-26.7	-1.9	1E-1	2E-2	0.20	579.6	99.8	26.8



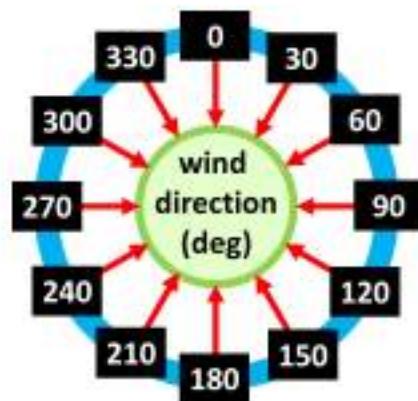
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 21 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1009	0	1009	0	30.2	71.1	-0.89	2.6	1009	136	12.2	0.12	0	428	1021

	TEMP	UWND	VWND	WWND	SPHU	TKEN	TPOT	WDIR	WSPD
	oC	m/s	m/s	mb/h	g/kg		oK	deg	m/s
1007	29.5	-0.98	2.4	0	18.0	0.33	302.1	171.9	2.6
1002	29.1	-1.0	2.5	2.4	18.0	0.39	302.0	170.9	2.7
997	28.4	-0.93	2.4	1.8	17.9	0.51	301.8	173.0	2.6
992	28.2	-0.96	2.3	3.5	17.8	0.45	302.0	171.0	2.5
987	27.7	-0.98	2.5	3.5	17.8	0.48	301.9	172.2	2.7
982	27.2	-0.65	2.3	4.9	17.8	0.45	301.9	178.2	2.4
977	26.7	-0.79	2.5	6.2	17.7	0.45	301.9	176.3	2.6
972	26.2	-0.90	2.4	7.4	17.7	0.57	301.8	173.7	2.6
966	25.8	-0.99	2.5	6.9	17.7	0.57	301.9	172.1	2.7
961	25.3	-0.82	2.3	6.6	17.7	0.57	301.9	174.4	2.5
955	24.8	-0.67	2.4	7.2	17.6	0.57	301.9	178.4	2.5
949	24.1	-0.99	2.4	8.7	17.6	0.57	301.8	171.7	2.6
942	23.6	-0.78	2.4	7.7	17.6	0.57	301.8	176.0	2.6
936	22.9	-0.59	2.6	7.7	17.5	0.57	301.7	180.8	2.6
929	22.9	0.56	3.0	8.2	15.2	0.45	302.4	204.4	3.1
921	22.4	1.3	3.3	6.9	14.8	0.20	302.6	214.6	3.5
912	21.9	1.5	4.1	7.3	14.5	0.20	302.9	214.8	4.3
891	20.7	1.7	4.7	4.8	13.6	0.20	303.7	213.7	5.0
864	19.2	1.7	3.9	4.5	12.7	0.20	304.8	216.9	4.2
834	17.5	0	2.6	4.1	11.8	0.20	306.2	193.9	2.6
800	15.4	-1.8	2.6	0	11.0	0.20	307.6	159.1	3.2
764	13.2	-4.5	2.6	0	9.8	0.20	309.3	133.6	5.2
725	11.2	-3.1	2.5	0	8.6	0.20	311.8	143.5	4.0
684	8.5	-2.3	1.8	0	7.4	0.20	314.0	142.9	2.9
641	5.6	-2.1	1.6	0	6.1	0.20	316.7	141.3	2.6
594	2.2	-2.8	2.0	-1.9	4.9	0.20	319.6	140.2	3.4
547	-1.6	-3.7	1.5	-3.5	3.9	0.20	322.7	126.5	4.0
498	-5.3	-5.7	2.8	0	4.8	0.20	326.9	129.7	6.3
450	-9.9	-5.6	3.7	-1.8	3.8	0.20	330.9	137.2	6.7
400	-15.2	-5.6	3.1	-1.8	2.1	0.20	335.2	133.0	6.4
351	-21.8	-3.9	2.9	3.5	0.93	0.20	339.2	140.2	4.8
303	-30.7	-3.9	5.5	2.2	0.47	0.20	341.3	158.1	6.7
258	-39.9	-3.0	2.2	2.6	0.21	0.20	343.7	141.0	3.7
219	-49.3	-2.4	2.8	3.5	1E-1	0.20	345.6	154.3	3.7
182	-60.3	-6.1	2.3	0	3E-2	0.20	346.6	124.5	6.5
137	-72.0	-5.4	1.2	0.93	1E-2	0.20	354.9	116.3	5.6
88	-66.7	-12.0	-2.9	-0.45	1E-2	0.20	414.3	90.3	12.4
63	-58.1	-12.4	-2.1	0	1E-2	0.20	475.1	94.0	12.6
38	-46.1	-25.9	-2.4	1.2	2E-2	0.20	580.4	98.6	26.0



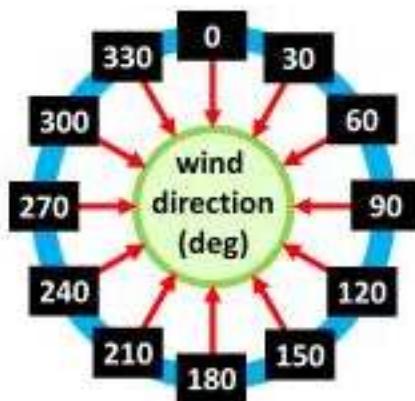
## Meteorological Profile: hysplit.t00z.nammf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 22 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RHHS	DSWF	PBLH
								hPa						
1009	0	1008	0	30.0	72.2	-1.1	2.8	1009	144	12.2	0.12	0	542	903

	TEMP	UWND	VWND	WWND	SPHU	TKEN		TPOT	WDIR	WSPD
	oC	m/s	m/s	mb/h	g/kg			oK	deg	m/s
1007	29.4	-1.1	2.8	0	18.1	0.33		302.0	172.3	3.0
1002	29.0	-1.2	2.8	0	18.1	0.33		302.0	170.9	3.0
997	28.5	-1.1	2.7	0	18.0	0.32		301.9	172.8	2.9
992	28.1	-1.2	2.6	2.4	17.9	0.32		301.9	170.0	2.9
987	27.6	-1.4	2.9	0	17.9	0.32		301.9	168.6	3.2
982	27.3	-1.5	2.8	0	17.9	0.32		302.0	165.8	3.2
977	26.7	-1.1	2.7	4.3	17.9	0.32		301.9	171.4	2.9
972	26.3	-1.1	2.7	5.8	18.0	0.32		301.9	171.9	2.9
966	25.8	-1.3	2.8	5.4	17.9	0.32		301.9	168.1	3.1
961	25.3	-1.00	2.7	5.3	17.9	0.32		301.9	173.7	2.9
955	24.7	-1.2	2.8	4.6	17.7	0.32		301.9	171.1	3.1
949	24.2	-1.4	2.8	4.8	17.7	0.32		301.9	167.9	3.2
942	23.5	-0.99	2.8	5.1	17.7	0.32		301.8	174.5	3.0
935	23.0	-0.74	3.0	2.8	17.3	0.32		301.9	180.0	3.1
928	23.1	0.86	3.2	4.1	15.3	0.32		302.6	208.8	3.3
921	22.6	1.5	3.4	4.8	14.9	0.20		302.8	217.5	3.7
912	22.3	1.6	3.9	2.1	14.5	0.20		303.3	215.9	4.2
891	21.0	1.9	4.3	1.9	13.6	0.20		304.1	218.0	4.7
864	19.4	1.4	4.1	1.8	12.6	0.20		305.1	213.3	4.3
833	17.5	0	2.9	0	11.8	0.20		306.2	193.9	2.9
800	15.3	-2.4	2.9	0	11.1	0.20		307.5	154.4	3.7
763	13.3	-4.3	3.0	0	10.0	0.20		309.4	138.7	5.2
725	11.4	-2.3	2.7	0	8.6	0.20		312.0	153.1	3.5
684	8.7	-1.9	2.0	0	7.4	0.20		314.2	150.3	2.7
640	5.7	-2.1	1.2	0	6.1	0.20		316.8	132.5	2.4
594	2.3	-2.2	0.98	0	5.0	0.20		319.6	127.4	2.4
547	-1.8	-2.7	0.98	0	3.9	0.20		322.6	123.6	2.9
498	-5.3	-4.7	2.4	0	4.9	0.20		326.9	130.8	5.3
450	-9.8	-4.3	3.5	0	3.7	0.20		331.0	143.1	5.5
400	-15.3	-5.3	3.1	-3.5	2.0	0.20		335.1	134.6	6.2
351	-21.8	-3.7	2.8	1.8	0.94	0.20		339.2	141.2	4.7
302	-30.7	-3.7	5.2	5.3	0.53	0.20		341.3	158.7	6.4
258	-39.8	-2.9	1.5	5.3	0.21	0.20		343.8	130.7	3.3
219	-49.2	-2.5	1.6	5.1	1E-1	0.20		345.8	137.0	3.0
182	-60.4	-5.4	1.8	0.88	3E-2	0.20		346.5	122.0	5.6
137	-72.6	-5.4	1.6	-1.1	1E-2	0.20		354.0	120.2	5.6
88	-66.7	-12.1	-1.7	-0.31	1E-2	0.20		414.2	96.0	12.2
63	-57.9	-12.5	-1.9	0.31	1E-2	0.20		475.6	95.1	12.6
38	-46.0	-25.3	-3.2	0.19	2E-2	0.20		580.9	96.7	25.5



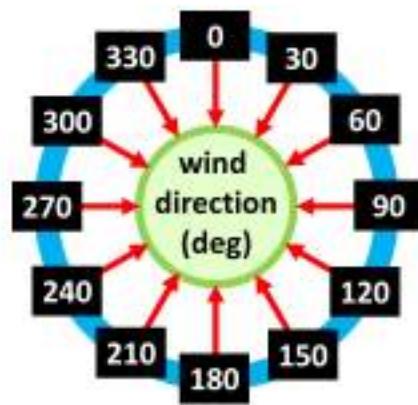
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 12 23 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1009	0	1009	0	30.1	73.0	-1.1	3.0	1009	144	12.3	0.12	0	223	950

	TEMP	UWND	VWND	WWND	SPHU	TKEN	TPOT	WDIR	WSPD
	oC	m/s	m/s	mb/h	g/kg		oK	deg	m/s
1006	29.3	-1.4	3.0	0	18.4	0.33	301.9	169.1	3.3
1001	28.9	-1.5	3.0	1.4	18.3	0.33	301.9	167.9	3.4
997	28.6	-1.5	3.0	0	18.3	0.34	302.0	167.5	3.4
992	28.1	-1.2	3.0	0	18.2	0.40	302.0	171.6	3.2
987	27.7	-1.4	3.1	2.7	18.2	0.39	302.0	168.9	3.4
982	27.2	-1.1	3.1	2.1	18.2	0.39	302.0	173.7	3.2
976	26.7	-1.1	3.0	2.8	18.1	0.39	301.9	173.4	3.2
971	26.2	-1.0	3.1	4.9	18.0	0.38	301.9	175.1	3.2
966	25.7	-1.1	3.1	4.7	18.1	0.36	301.9	173.8	3.3
960	25.2	-1.1	3.0	4.3	18.0	0.45	301.9	174.0	3.2
954	24.7	-1.00	3.2	5.2	18.0	0.45	301.9	176.5	3.3
948	24.2	-0.97	3.0	5.2	17.9	0.32	301.9	176.0	3.2
942	23.5	-1.4	3.3	6.4	17.9	0.32	301.8	171.5	3.5
935	23.1	-0.75	3.3	7.4	16.9	0.32	302.0	180.9	3.4
928	23.0	0.62	3.5	4.3	15.5	0.20	302.6	203.9	3.5
920	22.6	0.86	3.5	5.0	15.0	0.20	302.9	207.5	3.6
912	22.1	1.6	3.8	5.3	14.6	0.20	303.2	217.0	4.1
890	20.9	1.7	4.3	3.6	14.0	0.20	304.0	216.0	4.6
864	19.3	1.5	4.3	3.5	12.7	0.20	305.0	212.9	4.6
833	17.4	-0.58	3.5	0	11.9	0.20	306.2	184.5	3.6
799	15.4	-2.6	3.5	0	11.0	0.20	307.6	157.3	4.4
763	13.4	-3.6	3.2	3.9	9.8	0.20	309.6	145.2	4.8
724	11.5	-1.6	3.0	4.9	8.5	0.20	312.2	165.0	3.4
684	8.9	-1.6	2.0	4.5	7.3	0.20	314.4	154.9	2.6
640	5.8	-1.3	1.6	3.6	6.1	0.20	317.0	155.4	2.1
594	2.4	-1.9	1.4	0	5.0	0.20	319.8	140.6	2.4
546	-1.7	-2.0	1.2	-3.5	3.9	0.20	322.7	136.4	2.3
498	-5.3	-4.0	2.3	0	4.9	0.20	326.9	133.2	4.6
449	-9.8	-3.8	3.0	0	3.6	0.20	331.1	142.3	4.8
400	-15.3	-5.2	3.6	3.5	2.0	0.20	335.2	138.1	6.3
351	-21.8	-3.7	2.7	7.0	0.96	0.20	339.3	140.0	4.5
302	-30.7	-3.7	5.2	7.0	0.58	0.20	341.3	158.3	6.3
258	-39.8	-3.1	-0.34	5.0	0.20	0.20	343.9	97.6	3.1
219	-49.1	-3.3	0	7.5	1E-1	0.20	346.1	103.9	3.3
182	-60.4	-4.2	0.94	0	3E-2	0.20	346.6	116.5	4.3
137	-72.9	-5.0	1.1	-1.7	1E-2	0.20	353.5	116.6	5.1
88	-66.5	-11.7	-1.3	-0.44	1E-2	0.20	414.7	97.3	11.8
63	-57.9	-12.8	-3.2	-0.10	1E-2	0.20	475.6	89.9	13.2
38	-46.2	-25.0	-3.4	0.31	2E-2	0.20	580.4	96.1	25.2



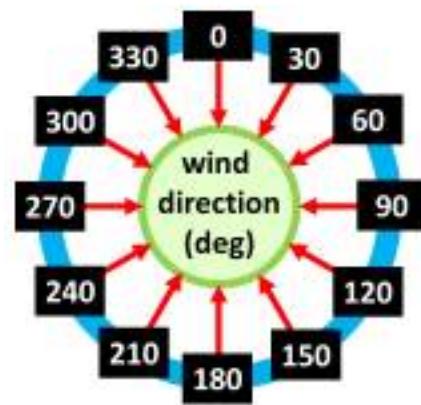
## Meteorological Profile: hysplit.t00z.namsf

File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 13 0 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1011	0	1009	0	30.2	73.7	-1.1	3.1	1011	140	12.1	0.12	0	78.9	817

	TEMP	UWND	VWND	WWND	SPHU	TKEN	TPOT	WDIR	WSPD
	oC	m/s	m/s	mb/h	g/kg		oK	deg	m/s
1009	29.5	-1.8	3.3	-1.8	18.7	0.30	301.9	165.9	3.7
1004	29.0	-1.4	3.4	0	18.6	0.30	301.8	171.6	3.6
999	28.6	-1.3	3.2	-1.0	18.5	0.30	301.9	171.4	3.5
994	28.1	-1.5	3.4	0	18.5	0.30	301.8	169.4	3.7
989	27.6	-1.7	3.4	0	18.4	0.30	301.7	167.0	3.8
984	27.3	-1.3	3.4	0	18.4	0.30	301.8	173.6	3.6
979	26.7	-1.7	3.4	0	18.5	0.30	301.7	168.0	3.8
974	26.2	-1.4	3.4	-3.5	18.4	0.30	301.6	172.2	3.7
968	25.8	-1.4	3.4	0	18.4	0.30	301.8	171.2	3.7
962	25.3	-1.3	3.5	0	18.3	0.30	301.8	173.9	3.7
957	24.7	-1.5	3.6	0	18.3	0.33	301.6	171.4	3.9
950	24.2	-1.2	3.4	0	18.2	0.20	301.7	174.8	3.6
944	23.5	-1.6	3.6	0	18.1	0.20	301.6	170.2	3.9
937	23.2	-1.1	3.8	0	16.6	0.32	301.9	177.4	3.9
930	23.0	0	4.0	0	15.5	0.20	302.3	193.9	4.0
923	22.5	0	4.1	0	15.4	0.20	302.6	193.9	4.1
914	22.1	0.50	3.7	-3.5	15.0	0.20	302.9	201.5	3.8
893	20.8	1.6	3.9	-3.5	14.3	0.20	303.7	216.3	4.2
866	19.2	0.96	4.3	0	13.2	0.20	304.6	206.3	4.5
835	17.3	-1.1	4.0	-3.5	12.0	0.20	305.8	178.2	4.1
801	15.2	-2.4	3.7	0	10.9	0.20	307.2	161.0	4.4
765	13.0	-3.3	3.0	0	9.7	0.20	308.9	145.7	4.4
726	11.5	-1.3	2.9	0	8.4	0.20	311.9	170.1	3.1
685	8.8	-1.3	2.1	-3.5	7.3	0.20	314.2	162.6	2.4
642	5.7	-1.4	1.6	-3.5	6.2	0.20	316.6	153.0	2.2
596	2.3	-1.5	0.82	-3.5	5.0	0.20	319.4	131.7	1.7
548	-2.0	-0.69	1.1	-7.0	3.9	0.20	322.1	162.2	1.3
499	-5.4	-3.0	2.1	-3.5	5.0	0.20	326.7	138.6	3.7
450	-9.8	-3.2	3.4	0	3.4	0.20	330.9	150.7	4.6
401	-15.2	-4.8	3.6	0	1.9	0.20	335.0	140.8	6.0
351	-21.7	-2.9	2.7	0	1.0	0.20	339.1	146.7	4.0
303	-30.8	-3.9	4.9	0	0.53	0.20	341.0	155.4	6.3
258	-39.7	-4.0	-1.3	3.5	0.17	0.20	343.7	86.0	4.3
219	-49.0	-3.0	-1.1	7.0	1E-1	0.20	345.9	84.3	3.2
182	-60.4	-3.4	0	1.8	3E-2	0.20	346.3	103.9	3.4
137	-73.2	-4.7	0.95	0	1E-2	0.20	352.6	115.3	4.8
88	-66.1	-11.3	-0.44	-0.57	1E-2	0.20	415.3	101.6	11.3
63	-58.2	-12.6	-3.8	-0.45	1E-2	0.20	474.6	87.3	13.2
38	-46.4	-24.9	-4.3	0.42	2E-2	0.20	579.5	94.0	25.3



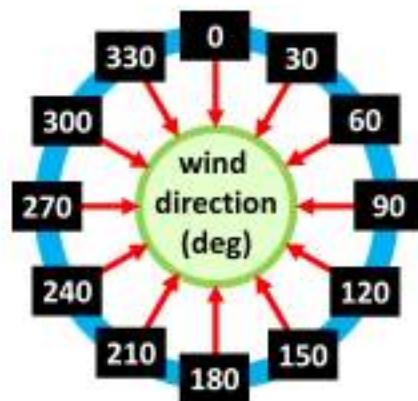
## Meteorological Profile: hysplit.t00z.namsf

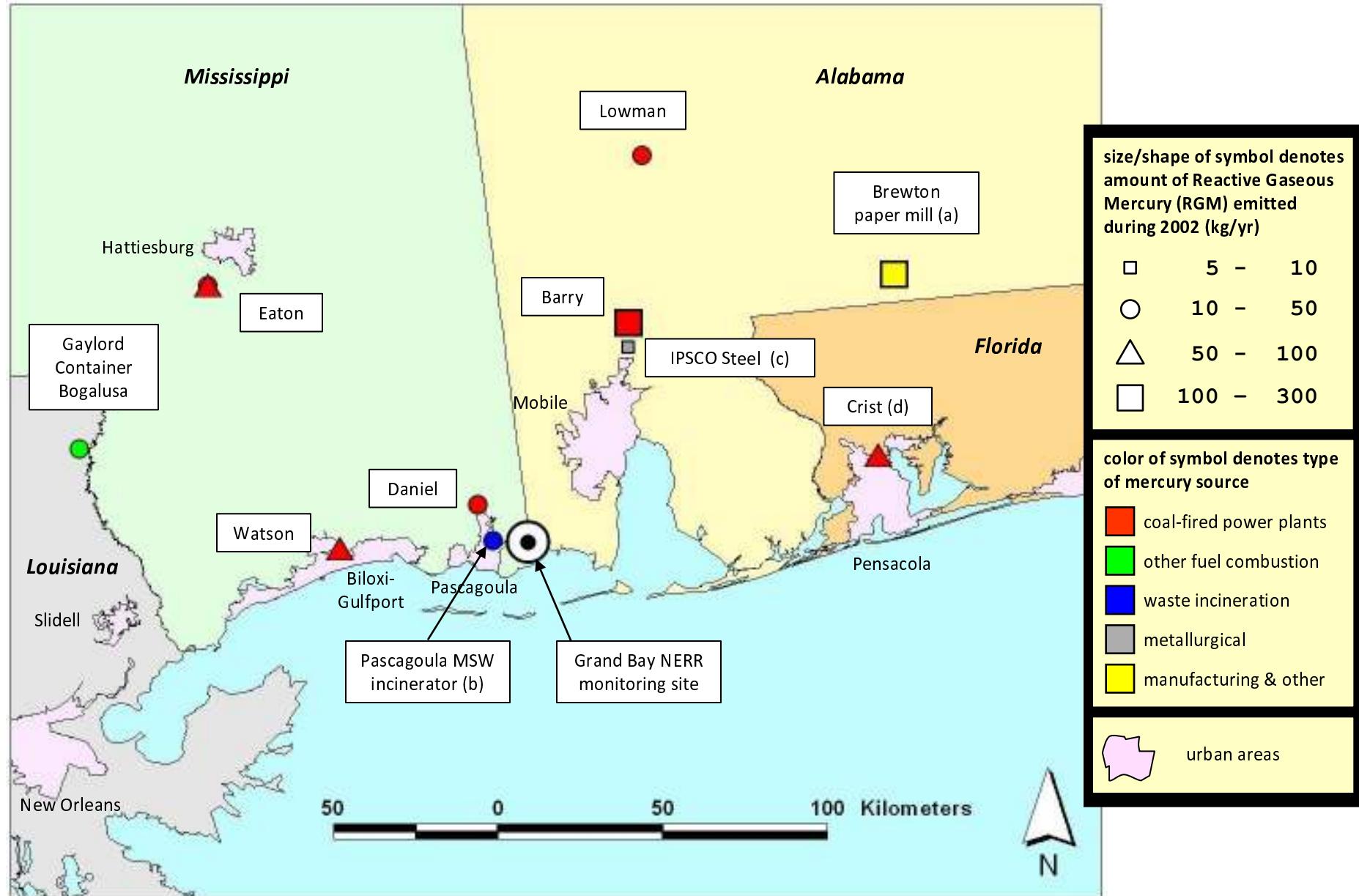
File start time : 10 8 12 0 0  
 File ending time: 10 8 14 0 0

Profile Time: 10 8 13 1 0  
 Profile Location: 30.41 -88.40 (335,110)

	SHGT	MSLP	TPP3	T02M	RH2M	U10M	V10M	PRSS	LHTF	SHTF	USTR	RGHS	DSWF	PBLH
								hPa						
1011	0	1009	5E-4	30.1	73.9	-1.1	3.3	1011	140	6.3	0.13	0	0	1009

	TEMP	UWND	VWND	WWND	SPHU	TKEN		TPOT	WDIR	WSPD				
	oC	m/s	m/s	mb/h	g/kg			oK	deg	m/s				
1009	29.3	-0.99	3.2	-1.8	18.7	0.52		301.7	176.6	3.3				
1004	28.9	-1.2	3.3	1.8	18.6	0.59		301.7	174.4	3.5				
999	28.5	-1.3	3.2	1.8	18.6	0.71		301.7	172.0	3.4				
995	28.1	-1.3	3.2	1.8	18.5	0.65		301.7	172.5	3.5				
990	27.6	-1.3	3.5	3.5	18.4	0.77		301.6	173.1	3.7				
984	27.2	-1.2	3.4	3.5	18.4	0.78		301.8	174.5	3.7				
979	26.6	-0.95	3.3	7.0	18.3	0.80		301.6	177.9	3.5				
974	26.2	-1.1	3.4	7.0	18.4	0.92		301.6	175.5	3.5				
968	25.7	-1.2	3.4	6.1	18.4	0.92		301.6	174.9	3.6				
963	25.2	-1.2	3.5	7.0	18.2	0.95		301.6	175.0	3.7				
957	24.7	-1.1	3.6	10.5	18.2	0.95		301.6	177.2	3.8				
951	24.2	-1.2	3.7	10.5	18.2	0.95		301.6	176.3	3.8				
944	23.4	-1.3	3.7	10.5	17.8	0.95		301.5	174.9	4.0				
938	22.9	-0.97	3.8	14.1	17.7	0.83		301.5	179.4	3.9				
931	22.5	-0.58	4.0	11.5	15.7	0.70		301.8	185.6	4.0				
923	22.2	0	4.3	11.6	15.2	0.20		302.2	193.9	4.3				
914	21.7	-0.27	3.9	10.5	14.8	0.20		302.5	189.9	3.9				
893	20.5	0.80	3.5	12.0	13.9	0.20		303.3	206.6	3.6				
866	19.1	0.52	4.2	11.6	12.9	0.20		304.5	200.9	4.2				
835	17.3	-1.6	4.3	7.0	11.8	0.20		305.8	173.1	4.6				
801	15.2	-2.2	3.7	0	10.6	0.20		307.2	163.0	4.4				
765	13.4	-2.9	2.3	7.0	9.7	0.20		309.4	142.6	3.7				
726	11.3	-0.90	2.8	0	8.4	0.20		311.6	175.7	2.9				
686	8.6	-0.89	2.2	4.0	7.3	0.20		313.9	171.6	2.3				
642	5.5	-1.5	1.5	0	6.3	0.20		316.4	148.8	2.2				
596	2.1	-1.8	0.72	0	5.0	0.20		319.2	126.1	1.9				
548	-2.4	-0.58	1.4	-7.0	3.8	0.20		321.6	172.0	1.5				
499	-5.2	-2.1	1.8	-19.1	4.9	0.20		326.8	144.9	2.8				
451	-10.5	-2.8	2.9	-14.1	3.6	0.20		330.0	149.6	4.0				
401	-15.7	-4.2	3.9	-3.5	2.2	0.20		334.4	146.5	5.7				
352	-22.0	-3.2	3.0	2.1	1.1	0.20		338.7	146.8	4.4				
303	-30.8	-3.4	5.1	3.4	0.49	0.20		341.0	160.3	6.2				
259	-39.8	-4.2	-1.9	0	0.13	0.20		343.6	79.9	4.6				
219	-48.9	-3.5	-1.7	0	1E-1	0.20		346.0	77.1	3.9				
182	-60.4	-2.8	-0.57	-1.5	3E-2	0.20		346.2	92.3	2.9				
138	-73.3	-4.7	0	-0.55	1E-2	0.20		352.6	103.9	4.7				
88	-65.8	-11.2	0.66	0.16	1E-2	0.20		415.9	107.2	11.3				
63	-58.9	-12.3	-4.5	1E-1	1E-2	0.20		472.9	83.8	13.1				
38	-45.9	-25.4	-5.4	-0.68	2E-2	0.20		580.6	91.8	26.0				





- (a) Mercury emissions included in 2002 NEI, but do not appear to be in 2000-2008 TRI
- (b) Mercury emissions included in 2002 NEI but incineration ceased in January 2001
- (c) Significant mercury emissions in 2002 NEI, but negligible emissions reported in 2008 TRI
- (d) Scrubber installed Dec 2009 that reduced RGM emissions dramatically

**Location of the Grand Bay NERR sampling site, along with large point sources of Reactive Gaseous Mercury in the region, based on the EPA's 2002 National Emissions Inventory**

